

## **Product Information**

## 64 72 120

## **Electronics End Cutting Nipper**



- Precision pliers for ultra fine cutting work, e. g. in electronics and fine mechanics
- Sturdy, zero backlash box joint
- Low-friction double spring for smooth and even opening
- The polish or mirror polish together with a fine film of oil offer effective rust protection - no circuit faults caused by peeling chrome from plated tools
- Cutting edges additionally laser-hardened, cutting edge hardness approx. 56 HRC

| WW. | <b>∡3</b> 5° |  |
|-----|--------------|--|
|-----|--------------|--|

| General                    |                              |
|----------------------------|------------------------------|
| Part No.                   | 64 72 120                    |
| EAN                        | 4003773017882                |
| Head                       | mirror polished              |
| Handles                    | with multi-component handles |
| Weight                     | 70 g                         |
| Dimensions                 | 120 x 67 x 17 mm             |
| Standard                   | DIN ISO 9654                 |
| REACH compliant            | does not contain SVHC        |
| RoHS compliant             | not applicable               |
| Technical details          |                              |
| Head width (A)             | 11 mm                        |
| Jaw length (B)             | 20 mm                        |
| Jaw thickness (joint) (D)  | 7 mm                         |
| Cutting edge length mm (C) | 6 mm                         |

Technical changes and errors excepted

#### www.npower.com.vn

Tài liệu được tổng hợp bởi đội ngũ kỹ thuật của **NPOWER** Bản quyền nội dung thuộc về **KNIPEX** 



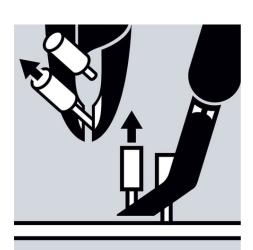


# **KNIPEX** Quality – Made in Germany





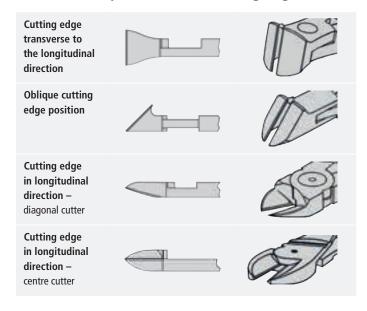




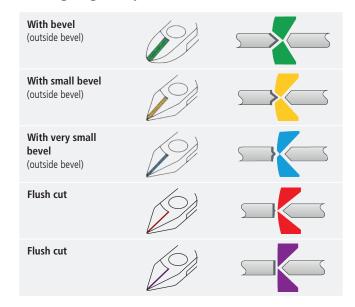


| 1 | Point                   |
|---|-------------------------|
| 2 | Gripping surface        |
| 3 | Recess (pipe grip)      |
| 4 | Additional cutting edge |
| 6 | Jaw                     |
| 6 | Flank                   |

## Direction and position of the cutting edges



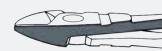
## Cutting edge shapes DIN ISO 5742



### Joint types

#### Lap joint

With the lap joint, which is used on carpenters' pincers, concretors' nippers and high leverage diagonal cutters, the two halves of the pliers lie on top of each other withou being milled out. The pliers handle can thus be designed to be very robust.



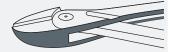
#### Single joint

With the single joint, half the thickness of each pliers handle is milled. Both pliers handles can thus be fitted into one another. The outer sides in the rivet area are smooth and not indented.



#### Box joint

One handle on the pliers is slit. The other handle is pushed through this slot. This joint connection can withstand a high level of load and strain because the joint bolt is supported on both sides and the inside handle is guided on both sides.



#### Slip joint

Slip joints enable optimal adaptation of the gripping jaws of pliers to various workpiece sizes. The opening width of the jaws is increased or decreased for this purpose. This occurs through shifting the two pliers handles with respect to one another.



## **Safety instruction**

- > Each tool should only be used for its specified purpose.
- > When using cutting pliers: beware of wire ends flying off. Wear protective goggles and – if needed – gloves. Be aware of bystanders!
- > Only handles marked with the symbol ★ 1000 V are insulating.

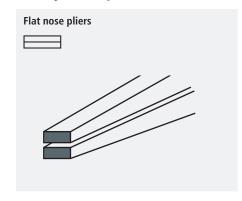


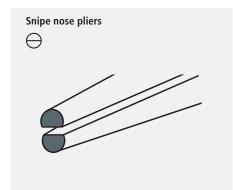
#### **Care instructions**

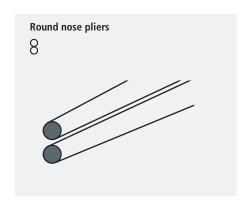
A drop of oil (e.g. Ballistol®) on the polished surfaces and in the joint keeps your pliers in good working order and extends their service life!



## Basic jaw shapes







## Examples of different handle types on a pair of pliers



Straight handles, fully-metal design without plastic grips are used when the hand must be placed at various positions when gripping. This is often the case with carpenters' pliers and concretors' nippers.



thin plastic coatings render pliers slip resistant and pleasant to grip. They support a precise hand position, which can be useful in screwing motions, for example. The typical handle for water pump pliers.



**thin plastic coatings** support the hand at the front and rear. This is always beneficial where high forces are required, for example with diagonal cutters.



#### **Multi-component grips**

Compared to handles with a thin plastic coating, comfort handles offer the hand a larger contact surface, enabling better distribution of force and thus making work more comfortable. The red, hard component ensures a firm grip on the pliers body, the softer blue component ensures ergonomic contact with fingers and the heel of the hand.



#### **Comfort Handles**

S-shaped handles.

The third, grey component in the thumb rest allows more control due to its special surface texture.

The ends of the handles each have a KNIPEXtend interface for extending the functionality, for example with TetheredTool Clips for attaching fall protection devices.



# VDE\*-insulated handles, multi-component grips

Insulated grips for working on electrical systems. Approved to DIN EN/IEC 60900, these pliers comply with significantly more stringent technical and safety standards.



#### VDE\*-insulated handles with dip-insulation

The dipped VDE-handles guarantee the same electrical protection as other VDE insulated handles. In particular, energy companies use these different looking VDE-pliers to help prevent the wrong tool from being used.



ESD\*\*-grips, multi-component grips

Dissipative sleeves enable a gradual, controlled equalisation of any prevailing differences in electric potential between the operator and sensitive electronic components.

- \* Association for Electrical, Electronic and Information Technologies
- \*\* electrostatic discharge

# **Cutting value table**

|               | Length | •       | •    | •    |      |          |
|---------------|--------|---------|------|------|------|----------|
| Article No.   | mm     | Ø mm    | Ø mm | Ø mm | Ø mm | Page     |
| 01 0          | 160    |         |      | 2.0  | 1.5  | 14       |
|               | 190    |         |      | 2.5  | 2.0  | 14       |
| 02 0          | 180    |         |      | 2.5  | 2.0  | 11       |
|               | 200    |         |      | 2.8  | 2.2  | 11       |
|               | 225    |         |      | 3.0  | 2.5  | 11       |
| 030           | 140    |         | 2.8  | 1.8  |      | 10       |
|               | 160    |         | 3.1  | 2.0  |      | 10       |
|               | 180    |         | 3.4  | 2.2  |      | 10       |
|               | 200    |         | 3.8  | 2.5  |      | 10       |
|               | 250    |         | 3.8  | 2.5  |      | 10       |
| 08 0          | 110    |         | 2.5  | 1.6  |      | 14       |
| 08 2          | 145    |         | 3.0  | 2.0  |      | 12       |
| U0 Z          |        |         |      |      |      |          |
| 00            | 185    |         | 3.8  | 3.0  |      | 12       |
| 09            | 240    |         | 4.6  | 3.0  |      | 15       |
| 13 0          | 160    |         | 2.5  | 1.6  |      | 40       |
| 13 4          | 165    |         | 3.2  | 2.2  |      | 41       |
| 14 2          | 160    | 2.5     | 1.5  |      |      | 48       |
| 19 0          | 130    |         | 2.2  | 1.6  |      | 52       |
| 25 01/03      | 125    |         | 2.2  | 1.6  |      | 55       |
| 25 0/21/25/26 | 140    |         | 2.5  | 1.6  |      | 55       |
|               | 160    |         | 2.5  | 1.6  |      | 55       |
| 26 1/26 2     | 200    |         | 3.2  | 2.2  |      | 56       |
| 50 0          | 160    |         | 1.8  |      |      | 86       |
|               | 180    |         | 2.0  |      |      | 86       |
|               | 210    |         | 2.2  |      |      | 86       |
|               | 225    |         | 2.2  |      |      | 86       |
|               | 250    |         | 2.2  |      |      | 86       |
| 51 01         | 210    |         | 2.2  |      |      | 86       |
| 55 00 300     | 300    | 2.0-3.0 | 2.2  |      |      | 87       |
| 61 0          | 200    | 1.0-6.0 | 4.0  | 3.5  | 3.0  | 110      |
| 62 12         | 120    | 0.3-1.0 | 0.7  | 5.5  | 5.0  | 273      |
|               |        |         |      | 0.0  |      |          |
| 64 0          | 115    | 2.0     | 1.0  | 0.6  |      | 272      |
| 64 11/12      | 115    | 1.4     | 0.8  |      |      | 272      |
| 64 22         | 115    | 0.8     | 4.0  |      |      | 272      |
| 64 32         | 120    | 1.5     | 1.0  | 0.5  |      | 272      |
| 64 42         | 115    | 1.5     | 1.0  | 0.5  |      | 272      |
| 64 52         | 115    | 1.3     |      |      |      | 272      |
| 64 62         | 120    | 0.6     |      |      |      | 272      |
| 64 72         | 120    | 1.5     |      |      |      | 272      |
| 67 0          | 140    | 4.0     | 3.1  | 2.0  | 1.5  | 111      |
|               | 160    | 4.5     | 3.4  | 2.5  | 2.0  | 111      |
|               | 200    | 5.0     | 3.8  | 3.0  | 2.5  | 111      |
| 68 01         | 160    | 4.0     | 2.8  | 2.3  |      | 111      |
|               | 180    | 4.0     | 3.2  | 2.5  |      | 111      |
|               | 200    | 4.0     | 3.5  | 2.8  |      | 111      |
|               | 280    | 4.5     | 4.0  | 3.2  |      | 111      |
| 70            | 110    | 3.0     | 2.0  | 1.2  |      | 96       |
| , ,           | 125    | 3.0     | 2.3  | 1.5  |      | 96       |
|               |        |         |      |      |      |          |
|               | 140    | 4.0     | 2.5  | 1.8  |      | 96       |
|               | 160    | 4.0     | 3.0  | 2.0  |      | 96       |
|               | 180    | 4.0     | 3.0  | 2.5  |      | 96       |
| 71            | 160    | 5.3     | 4.4  | 3.2  | 3.0  | 104      |
|               | 200    | 6.0     | 5.2  | 4.0  | 3.6  | 105, 106 |
|               | 250    |         | 5.6  | 4.0  | 3.8  | 107      |
| 71 31         | 160    | 5.3     | 4.8  | 3.6  | 3.3  | 104      |
|               | 250    |         | 6.0  | 4.3  | 4.2  | 107      |

|                | Length | •         | •    | •    |      |          |
|----------------|--------|-----------|------|------|------|----------|
| Article No.    | mm     | Ø mm      | Ø mm | Ø mm | Ø mm | Page     |
| 72 62          | 200    | 6.0       |      |      |      | 93       |
| 73 0           | 160    | 4.8       | 3.8  | 2.7  | 2.2  | 99       |
| 73 7           | 180    | 5.5       | 4.6  | 3.2  | 3.0  | 102      |
| 74 0           | 140    |           | 3.1  | 2.0  | 1.5  | 100      |
|                | 160    |           | 3.4  | 2.5  | 2.0  | 100      |
|                | 180    |           | 3.8  | 2.7  | 2.2  | 100      |
|                | 200    |           | 4.2  | 3.0  | 2.5  | 100      |
|                | 250    |           | 4.6  | 3.5  | 3.0  | 100      |
| 74 91          | 250    | 5.0       | 5.0  | 3.8  | 3.5  | 103      |
| 75 02/12       | 125    | 0.2-1.3   | 1.0  | 0.6  | 0.4  | 265      |
| 75 22          | 125    | 0.2-1.3   | 0.9  | 0.4  | 0.3  | 265      |
| 75 52          | 125    | 0.2-0.8   | 0.5  | 0.3  | 0.5  | 265      |
| 76 01/03/05/12 | 125    | 0.4-3.0   | 2.3  | 1.5  | 0.6  | 98       |
| 76 22          | 125    | 0.4-2.5   | 2.0  |      | 0.0  | 98       |
| 76 81          | 125    | 0.4 – 1.7 | 1.3  | 0.8  |      | 98       |
| 77 01          | 115    | 0.3 – 1.6 | 1.2  | 0.6  |      | 269      |
| 77 02          | 115    | 0.3 – 1.6 | 1.2  | 0.6  |      | 269, 270 |
| VL             | 120    | 2.0       | 1.4  | 1.0  | 0.6  | 271      |
|                | 130    | 0.3-2.0   | 1.5  | 0.8  | 0.0  | 269, 270 |
|                | 135    | 2.2       | 1.6  | 1.2  | 0.8  | 271      |
| 77 11/12       | 115    | 0.3 – 1.6 | 1.2  | 0.6  | 0.0  | 269, 270 |
| 77 21          | 115    | 0.3 – 1.3 | 1.0  | 0.0  |      | 269      |
| 77 22          | 115    | 0.3 – 1.3 | 1.0  |      |      | 269      |
| 77 32          | 115    | 0.3 – 1.3 | 1.0  | 0.5  |      | 269, 270 |
| 11 32          | 120    | 1.6       | 1.0  | 0.6  | 0.2  | 271      |
|                | 130    | 0.3-2.0   | 1.3  | 0.6  | 0.2  | 269, 270 |
| 77 41          | 115    | 1.3       | 0.8  | 0.0  |      | 269      |
| 77 42          | 115    | 0.3 – 1.3 | 0.8  |      |      | 269, 270 |
| 1172           | 130    | 0.3 – 1.6 | 1.3  |      |      | 269, 270 |
| 77 52          | 115    | 0.3 - 1.0 | 0.8  | 0.5  |      | 269, 270 |
| 77 72          | 115    | 0.3 - 0.8 | 0.0  | 0.5  |      | 269, 270 |
| 77 82          | 130    | 0.3 – 1.6 | 1.3  |      |      | 269, 270 |
| 78 03/06/13    | 125    | 0.2 – 1.6 | 1.0  |      |      | 262      |
| 78 03          | 140    | 0.2 - 2.1 | 1.2  |      |      | 264      |
| 78 23          | 125    | 0.2 - 1.0 | 0.6  |      |      | 262      |
| 78 31/41       | 125    | 0.2 - 1.0 | 0.0  |      |      | 262      |
| 78 61/71       | 125    | 0.2 - 1.6 | 1.2  |      |      | 262      |
| 78 61          | 140    | 0.2 - 2.1 | 1.4  |      |      | 264      |
| 78 81/91       | 125    | 0.2-1.6   | 1.2  | 0.6  |      | 262      |
| 79 02          | 120    | 0.2 – 1.4 | 1.0  | 0.6  |      | 266, 267 |
| 79 02          | 125    | 0.2 - 1.7 | 1.3  | 0.7  |      | 266, 267 |
| 79 12          | 125    | 0.3 – 1.7 | 1.3  | 1.0  | 0.6  | 266, 267 |
| 79 22          | 120    | 0.1-1.3   | 0.8  | 1.0  | 0.0  | 266, 267 |
| 79 22          | 125    | 0.1-1.7   | 1.0  |      |      | 266, 267 |
| 79 32          | 125    | 0.2-1.5   | 1.1  | 0.6  |      | 266, 267 |
| 79 42          | 125    | 0.1-1.5   | 0.8  | 0.0  |      | 266, 267 |
| 79 52          | 125    | 0.1-1.3   | 0.9  | 0.5  |      | 266, 267 |
| 79 62          | 125    | 0.1 – 1.3 | 0.8  | 0.5  |      | 266, 267 |
| 95 6           | 190    | 0.1 1.5   | 0.0  | 4.0  | 2.5  | 178      |
| 99 0           | 200    |           | 1.8  | 1.4  | 2.5  | 88       |
| JJ 0           | 220    |           | 2.4  | 1.6  |      | 88       |
|                | 250    |           | 2.4  | 1.6  |      | 88       |
|                | 280    |           | 2.4  | 1.8  |      | 88       |
|                | 300    |           | 3.1  | 1.8  |      | 88       |
| 99 1           | 250    |           | 3.3  | 1.8  |      | 89       |
|                | / 11/  |           | ر.ر  | 1.0  |      | 03       |

## Wire classes

| Material examples            | Type of wire | Tensile s<br>N/mm² | trength<br>kp/mm² |  |
|------------------------------|--------------|--------------------|-------------------|--|
| Copper, plastics             | soft         | 220                | 22                |  |
| Nail, wire pin               | medium-hard  | 750                | 75                |  |
| Wire rope strand, steel wire | hard         | 1800               | 180               |  |
| Spring steel wire            | piano wire   | 2300               | 230               |  |

#### Note

The maximum values always indicate the performance limit under the most favourable cutting conditions, when the wire is placed as near as possible to the joint.

## Structure of article number

# 87 02 250 T

Example of the item number on the pliers handle

|  |                             | 1   |                                  |  |
|--|-----------------------------|---|----------------------------------|--|
| Basic model<br>e. g.<br>KNIPEX Cobra®<br>Hightech Water<br>Pump Pliers | <b>Style</b> e. g. straight | Finish e. g. head polished, handles with multicomponent grips | <b>Length</b><br>e. g.<br>250 mm | Accessory<br>e. g.<br>Tethered-<br>Tools-<br>range |
| 87   | 0                           | 2   | 250                              | Т  |



firmly welded to the handle grip for attaching a safety cord or adaptor sling

## **Head / handles**

Pliers black atramentized, head polished



Head polished, handles plastic coated



Head polished, handles with multi-component grips



Pliers chrome plated, handles plastic coated



Pliers chrome plated



Pliers chrome plated, handles with multicomponent grips



Pliers chrome plated, handles insulated with multi-component grips, VDE-tested



Pliers chrome plated, handles with dipped insulation, VDE-tested DIN EN/IEC 60900



## **Pictograms**

| . iccogic        |   |             |                                  |            |  |
|------------------|---|-------------|----------------------------------|------------|--|
|                  | Packing unit  | ~           | W-crimp                          | $\circ$    | Internal circlip                         |
| SB/BK            | Carded pliers with euro holes   |             | Hexagonal crimp                  | $\bigcirc$ | Externel circlip                         |
| ESD              | Electrostatic discharging, dissipative                                      |             | Square crimp                     | $\circ$    | Retaining ring, straight                 |
| <u></u> ★ 1000 V | Insulated according to IEC 60900, usable up to 1000 V AC/1500 V DC          |             | Tyco crimp                       | $\circ$    | Retaining ring, diagonal                 |
| DYE GS           | VDE tested, also in compliance with GPSG (Equipment and Product Safety Act) | <u> </u>    | Western crimp                    | Ö          | Grip ring                                |
| <b>⇔</b>         | Cu- + Al-multi-conductor cable,<br>solid and multi-stranded                 | V           | Trapezoidal crimp front          |            | Flat jaws                                |
|                  | Wire rope   | 0           | Hexagon                          |            | Flat and pointed jaws                    |
| •                | Ribbon cable  | 0           | Hexagonal screw                  | $\Theta$   | Half-round jaws                          |
|                  | Steel wire armoured cable (SWA)   |             | Slotted screw                    | 8          | Round jaws                               |
|                  | ACSR cable  | 0           | Cross recessed screw             | 1          | Angle                                    |
|                  | Soft wire   | •           | PlusMinus cross recessed screw   |            | Smooth gripping surfaces                 |
|                  | Medium hard wire  |             | Pozidriv cross recessed screw    |            | Smooth-serrated gripping surfaces        |
|                  | Hard wire   | 0           | Torx                             |            | Knurled gripping surfaces                |
|                  | Piano wire  | -0-         | Capacity double-bit key          |            | Cross-hatched, knurled gripping surfaces |
|                  | Square crimp automatic  | 0           | Internal square 3/8"             | <b>P4</b>  | Centre cutter                            |
| X                | Hexagonal crimp automatic   |             | Internal square 1/2"             |            | Cutting edges with bevel                 |
| ×                | Four mandrel crimp  |             | Hexagonal socket                 |            | Cutting edges with small bevel           |
|                  | Mandrel crimp   | 0           | 12-point                         |            | Cutting edges with very small bevel      |
|                  | Trapezoid crimp   | -           | Driving Square                   |            | Cutting edges without bevel              |
|                  | Oval crimp  |             | Bit holder 1/4" (hexagon socket) |            | For flush cut of soft materials          |
| M                | F-crimp   | WM          | With opening spring              |            |  |
| W                | Trapezoid indent crimp  | <b>&gt;</b> | With lead catcher                |            |  |
|                  |   |             |                                  |            |  |

## **Registered Trademarks of the companies**

| Ballistol®            | F.W. Klever GmbH                     |
|-----------------------|--------------------------------------|
| Con-Pearl®            | friedola TECH GmbH                   |
| Fidlock®              | Fidlock GmbH                         |
| gesis <sup>®</sup>    | Wieland Electric GmbH                |
| Kapton®, KEVLAR®      | E. I. du Pont de Nemours and Company |
| L-BOXX®               | Sortimo International GmbH           |
| Mini-Fit®, Micro-Fit™ | Molex® Inc.                          |
| MC®                   | Multi-Contact AG                     |

| Phillips®             | Phillips Screw Company            |
|-----------------------|-----------------------------------|
| Pozidriv <sup>®</sup> | European Industrial Service Ltd.  |
| Radox®                | HUBER+SUHNER AG                   |
| Scotchlok™            | 3M                                |
| Solarlok®             | Tyco Electronics                  |
| systainer®            | TANOS GmbH                        |
| Torx®                 | Acument Global Technologies, Inc. |
|                       |                                   |