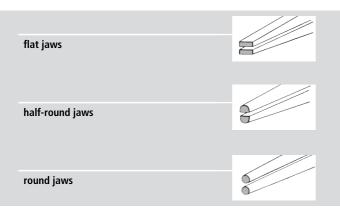
GENERAL CATALOG 2013





PLIERS ABC TECHNICAL BASICS

BASIC SHAPES OF THE JAWS





Cutting Pliers for cutting or nipping (diagonal, center and end cutters, carpenters' pincers etc.)



Gripping Pliers (flat-, long-nose and water pump pliers

JOINT CONNECTIONS



Forged-in joint axle

The rivet is part of one handle (forged from one piece)

- high stability to withstand highest strain
- long service life



Joint with inserted rivet

A proved, sturdy and precise rivet connection for all standard pliers.



Bolted joint

For particularly demanding requirements in terms of precision and smooth operation, e.g. in circlip pliers and cable shears (even the finest multi-stranded conductors have to be cut cleanly).



Combined Pliers

for cutting and gripping (combination, stork beak and radio pliers etc.)



Special Pliers

for special applications, e.g. notching or punching different types of materials (sheet-metal nibbler, tile nibbling pincers

TYPES OF JOINTS

Lap joint

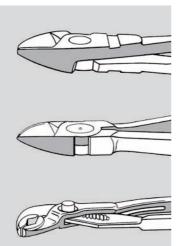
The two pliers halves lie on top of each other but are not milled out.

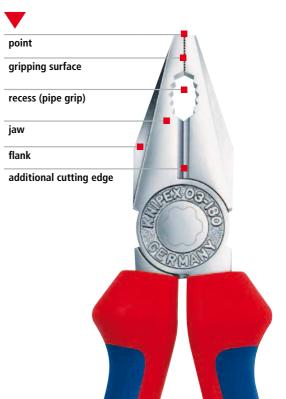


Half the thickness in each pliers handle is milled away in the joint area so that both handles can be laid into each other.

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.







CUTTING CAPACITIES

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

Article no.				0			page
	Length in	Length mm	ø in	ø in	ø in	ø in	
61 0	8	200	3/64 - 15/64	5/32	9/64	1/8	62
62 12	4 3/4	120	1/64 - 3/64	1/32			62
64 0	4 1/2	115	5/64	3/64	1/64		64
64 11	4 1/2	115	1/16	1/32			64
64 12	4 1/2	115	5/64	1/32	1/64		64
64 22	4 1/2	115	1/32				64
64 32	4 3/4	120	1/16	3/64	1/64		64
64 42	4 1/2	115	1/16	3/64	1/64		64
64 52	4 1/2	115	3/64				64
64 62	4 3/4	120	1/64				64 / 66
64 72	4 3/4	120	1/16				64
67 0	5 1/2	140	5/32	1/8	5/64	1/16	67
	6 1/4	160	3/16	1/8	7/64	5/64	67
	8	200	13/64	5/32	1/8	7/64	67
68 01	6 1/4	160	5/32	7/64	3/32		67
	7 1/4	180	5/32	1/8	3/32		67
	8	200	5/32	9/64	7/64		67
69 0	5 3/25	130	1/64 - 5/64	3/64	3/64	1/32	67
70	4 1/4	110	1/8	5/64	3/64		69
	5	125	1/8	3/32	1/16		69
	5 1/2	140	5/32	3/32	5/64		69
	6 1/4	160	5/32	7/64	5/64		69
	7 1/4	180	5/32	1/8	3/32		69
71	8	200	1/4	13/64	5/32	9/64	70
73 0.	6 1/4	160	3/16	5/32	7/64		75
73 71	7 1/4	180	7/32	3/16	1/8	1/8	79
74 0.	5 1/2	140		1/8	5/64	1/16	76
	6 1/4	160		1/8	3/32	5/64	76
	7 1/4	180		5/32	7/64	3/32	76
	8	200		11/64	1/8	3/32	76
	10	250		3/16	9/64	1/8	76
74 91	10	250	13/64	13/64	5/32	9/64	79

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75 12	5	125	1/64 - 3/64	3/64	1/64	1/64	80
75 22	5	125	1/64 - 3/64	2/64	1/64	1/64	80
75 52	5	125	1/64 - 3/64	1/64	1/64		80
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79 02	5	125	1/64 - 5/64	3/64	1/32		88 / 90
79 12	5	125	1/64 - 5/64	3/64	3/64	1/64	88 / 90
79 22	4 3/4	120	1/64 - 3/64	1/32			88 / 90
79 22	5	125	1/64 - 5/64	3/64			88 / 90
79 32	5	125	1/64 - 1/16	3/64	1/64		88 / 90
79 42	5	125	1/64 - 1/16	1/32			88 / 90
99 0	8	200		5/64	1/16		60
	8 3/4	220		3/32	1/16		60
	10	250		3/32	1/16		60
	11	280		7/64	5/64		60
	12	300		1/8	5/64		60
99 1	10	250		1/8	5/64		61
	12	300		5/32	5/64		61

SYMBOLS

	flat jaws
Θ	half-round jaws
8	round jaws
	flat and pointed jaws
	box joint
13	bolted joint
	smooth gripping surfaces
	serrated gripping surfaces
₩	cross-hatched, knurled gripping surfaces
WW	with opening spring

>	with lead catcher
<u> </u>	angle

1	centre cutter
	cutting edges with bevel
	cutting edges with small bevel
	cutting edges with very small bevel
	cutting edges without bevel

	electrostatic discharging, dissipative
28 3	electronics
	VDE tested, also in conformance to GPSG (Equipment and Product Safety Act)
<u>≙</u> 1000 V	insulated according to IEC 60900 / ASTM F1505, usable up to 1000 V AC/1500 V DC
습1000 V	insulated according to DIN VDE 0680/1, suitable for the application up to 1000 V AC / 1500 V DC
CE	conforms to a European directive
	mechanically tested in accordance with the equipment and product safety act

X	WEEE marking (Waste Electrical and Electronic Equipment Directive)
$\Delta^{\prime}\Delta$	weight
← ►	length

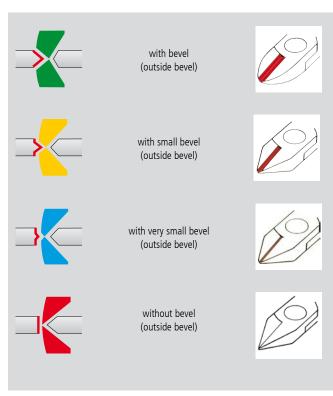
	soft wire
	medium hard wire
•	hard wire
	piano wire
♦	Cu + Al multi-conductor cable, solid and multi- stranded
	wire rope
Fe	iron



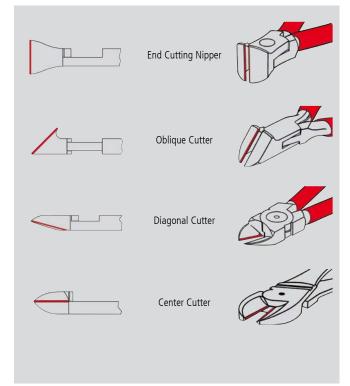
CUTTING EDGES TECHNICAL BASICS

CUTTING EDGE SHAPES

CONFORMING TO DIN ISO 5742



DIRECTION AND POSITION OF CUTTING EDGES



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 those around you! Only handles marked with the symbol <u>★</u> 1000 V are insulated.



Material examples	Type of wire	Tensile	strength		-
		N/mm ²	kp/mm²	6	ş
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		



ARTICLE NUMBER



STRUCTURE OF ARTICLE NUMBER HEAD/HANDLES

Basic model e.g.: Combination Pliers	Style e.g.: straight	Finish e.g.: head polished, handles black atramentized	Length e.g.: 180 mm
03	0	0	180



A drop of oil on polished surfaces and in the joint will keep the tool in good working order and will increase the service life of your pliers.

Registered Trademarks of the companies

Con-Pearl®	PARAT-WERK Schönenbach GmbH + Co. KG
Duspol®	Benning, Elektrotechnik and Elektronik GmbH & Co. KG
gesis®	Wieland Electric GmbH
Kapton®, KEVLAR®	E. I. du Pont de Nemours and Company
Radox®	HUBER+SUHNER AG
Phillips®	Phillips Screw Company
Pozidriv [®]	European Industrial Service Ltd.
systainer®	TANOS GmbH
MC®	Multi-Contact AG
Solarlok®	Tyco Electronics

ПЕА	D/ NANDLES		
0	Pliers black atramentized, head polished		
1	Head polished, handles plastic coated		MILEX
2	Head polished, handles with multi- component grips		
3	Pliers chrome plated, handles plastic coated		
4	Pliers chrome plated		THE STREET
5	Pliers chrome plated, handles with multi- component grips		0.0
6	Pliers chrome plated, handles insulated with multi-component grips; VDE-tested DIN EN/IEC 60900/ASTM F150	05 <u>№</u> <u>A</u> 1000 V	(03.0 (03.0
7	Pliers chrome plated, handles with dipped insulation; VDE tested DIN EN/IEC 60900/ASTM F150	05 <u>A1000V</u>	KOIDEX (10)
8	Pliers head polished, handles with multi- component grips; VDE-tested DIN EN/IEC 60900/ASTM F150	05 ≜1000V	2 1060 V 3

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WIRE STRIPPERS + DISMANTLING



Combination Pliers

"Lineman's Pliers"

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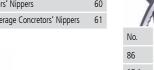
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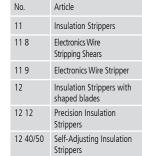
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KNIPEX MultiStrip 10

Automatic Insulation

Automatic Insulation

Stripper for flat cable

Mini Stripping Tool

Electricians' Pliers

Installation Pliers

Dismantling Tool

Dismantling Tool

data cables

Dismantling Tool for

Coated-Wire
Dismantling Tools

Stripping Tweezers for

Stripper

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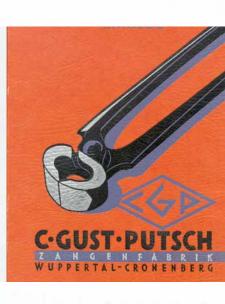


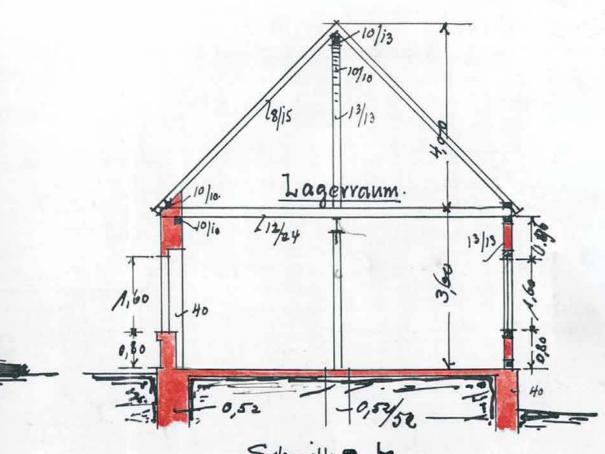
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Plan

fur Herm Gust Putsch Oberkamp bei Cronemberg.





Simitta-1

Cronenberg, den 25

3 4 5 6 7 8 9 10m.

Der Banherr.

L. Just Patrin

HOW EVERYTHING BEGAN – AND A SIMPLE PRINCIPLE







1882 Carl Gustav Putsch set up his own small forge shop in Cronenberg (now a part of Wuppertal).

1922 Carl Putsch takes over management. The company develops into an industrial firm.

1942 KNIPEX, the brand, is created and registered.

1954 Karl Putsch (photo left), the grandson of the company founder, takes over management of the family-owned company. Numerous innovations and modern production technology characterise the development.

1987 Ralf Putsch joins the company. International sales are seriously expanded. Other tool manufacturers become part of the KNIPEX Group.

Carl Gustav Putsch wanted to stand on his own two feet after completing his apprenticeship as blacksmith with his father. He therefore set up his own business in 1882 and forged carpenters' and farriers' pincers with two journeymen, 60 pieces per day. The other processes were also carried out in careful manual labour. The quality was sought after, the small enterprise grew.

The next generations were able to build continuously on these foundations. We have retained an independent family-owned company up to the present day. A lot has changed since the first years. Over time, the workshop turned into a factory with modern machinery and continuously improving technology. New types of pliers and pioneering innovations were added. The number of supplied countries grew steadily.

However, our fundamental principle has stayed in place: remain faithful to a product group, concentrate all strengths on it and be "simply the best" in pliers. Don't get side-tracked, instead create more performance and quality in a single segment. This is what KNIPEX stands for as today's leading brand in pliers.



FOR WHOM WE MAKE PLIERS

They are constantly in our mind: People who work with tools professionally. Who need to be able to rely on their tools, even when the going gets tough. Who expect their tools to last a long time. In other words: Users who are demanding in every respect and who want only the best.

We offer these users a range of around 1,000 different pliers. With this choice we can provide exactly the right tool for every application - and always in a suitable design and size.

Because the verdict of the professionals is our benchmark, we are always looking for their feed-back. About how they work with their pliers and what's important to them, so that we can understand precisely and in detail what matters to them.

Paramount is to know what makes their work easier, quicker and safer. That is, the subject of ergonomics, adapting working appliances to their users. Despite high performance, tools should never stress a user more than necessary. Here, for example, the good design of pliers handles is not the only criterion. We always find new ways of saving strength and relieving the whole handarm system.







QUALITY IN EVERY DETAIL





Sometimes we give our pliers a really hard time. We try to destroy them to find out what makes them good and long-lasting. Because we don't want to leave anything to chance, we take a long, careful look.

Many trials, for example, have shown us that high-leverage diagonal cutters for very hard wire should be alloyed at best with 0.8% carbon and certain defined parts of chromium and vanadium.

Correctly hardened, this steel guarantees optimum cutting performance and service life. That's why we use it for our pliers — even if it has to be produced especially for us, costs more and is hard to process. But our high product demands require this.

The rivet of the high-leverage diagonal cutter also has to stand up to a lot of stress. That's why we literally give it backup: we forge it straight onto the pliers. This means extra effort — we have to precision mill the rivet to a few hundredth millimeters. Satisfied users are worth this effort.

And then there are, no less important: the angles, the sharpness, the hardness, the toughness of the cutting edges. The precision and smooth movement of the joint. The handle design and the finish: we keep reviewing these subjects, we research, test and improve.

MADE IN WUPPERTAL, GERMANY

A lot has to come together so that we can make the best pliers.

First of all, the special material. Then: modern processing methods and machines. We want to work with high precision and efficiently at all times.

The machines we require for our special needs are not always available on the market. Then we construct these ourselves. Our mechanical engineers come up with state-of-the-art solutions even for tricky tasks.

And last but not least: our employees. With their comprehensive experience, their knowledge and skills they make sure that everything turns out precisely as our customers expect. So that we can keep the KNIPEX promise.

Our pliers run through many production steps which are all carefully coordinated. From forging to machining, hardening, surface finishing and all the way to packing, these steps are all carried out under the one roof. This means that we can have a direct and complete influence on how our products are created.

The short distances allow us to respond quickly and implement improvements immediately.







THE THINK TANK





When we have achieved something we are happy — but we don't stop there. For us, better is the enemy of the good. And we like to be the first to have the good ideas for better pliers.

We continuously work on new products and product advantages which offer our users tangible added value. For example by saving handforce when cutting or adjusting pliers for gripping quicker and with more precision. Or you can work without a heavy tool because a more compact one can do the same job.

No matter whether it's a small improvement or a totally new idea: everything is meticulously thought out and designed with state-of-the-art software. New models are then put through the acid test — with the help of computer simulations in the test lab and in user testing. The results are then used to further optimise the product, it is re-tested and finally released for production.

By the time they're on the market our pliers have already come a long, hard way.



OUR CUSTOMERS

Reliably, confidently and long-term — this is how we wish to collaborate with our customers. We have been doing precisely this for decades with many of them. We offer high quality, performance, good service and contact partners who know what it's all about. We want working with us to be easy and pleasant.

Our brand is known and appreciated by consumers. We offer various support for the sale of our products. We visit users together with our distributors to present our tools. We train our partners' field salesforce because a lot can be said about our pliers which the salesperson can use as convincing arguments.



Our understanding of partnership also means that we do not sell directly to end users. And there are no exceptions.

Today, customers in more than 100 countries bank on our products. We reach them via a constantly enlarging, worldwide network of agencies, our own subsidiaries and importers. By observing the many markets we can gain insights and discover important trends, which will be beneficial to the up-to-dateness and competence of our range. Our customers also benefit from this.



PINZE **ALICATES** КЛЕЩИ ZANGE TANG πένσα KLEŠTĚ KLIJEŠTA KERPETEN 钳子__PINCES



OUR VALUES – OUR EMPLOYEES



We want to be successful and do a lot to achieve this. But we don't want economic success at any price and not at the expense of values which are important to us.

Our aspirations are to act and operate sustainably. The longevity of our products is only one aspect of many.

We feel closely linked with our location. That is why we are particularly aware that we have a responsibility towards our environment and society — and thereby our future generations. We want to treat resources carefully and not burden nature more than absolutely necessary.

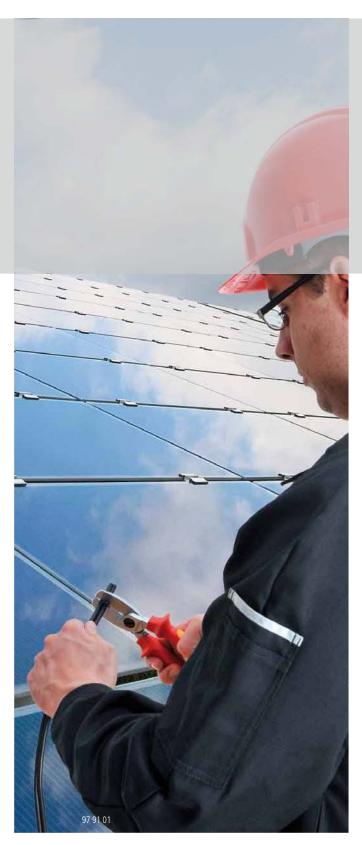
We engage ourselves in many ways in our sphere, in particular in the sectors of education, social policy and culture.

Our employees are particularly important to us. They provide the basis for our success with their knowledge and skills, their commitment and ideas. We train them very thoroughly and support them when they want to develop themselves and learn something new. We put emphasis on a good an fair cooperation and know that we can only attain our high targets jointly.



SPECIAL TOOLS FOR PHOTOVOLTAICS

ALL WORK STEPS WELL CO-ORDINATED FOR BEST RESULTS





There is a steadily increase of electrical power produced by photovoltaic plants (PV systems). The output from this environmentally friendly source of energy rises each year by about 20% worldwide. However, the share in the total power generation is still below 0.3% worldwide, which means there is still rich potential for growth. This makes photovoltaic a profitable sphere of activities for trade and for electrical contractors.

The photovoltaic tools from KNIPEX, customized for cutting, stripping and crimping the special photovoltaic cables and connectors, offer professional and reliable work results and ensure that the relevant requirements, such as e.g. Ral GZ 966, are met.

The requirements for a technically perfect installation of the photovoltaic systems are very high. It is a demanding task to create an electrically efficient and constantly reliable connection in combination with high mechanical requirements.





for contacts from:

Huber + Suhner Multi-Contact Hirschmann Tyco Wieland and others

Tool Case for Photovoltaics

for an exact connector positioning in the crimp profile

Article No. 97 91 01: all tools required for assembly in one case equipped with crimping dies for standard solar cable connectors

SPECIAL PHOTOVOLTAIC RANGE FROM KNIPEX



Cut effected with a Cable Shears: easy, clean cut without any deformation of the cable.



High demands in terms of results require the use of high-quality special tools also. These must be adapted precisely to suit systems from various manufacturers.



As the systems are not compatible with each other, each type of connector requires a set of individual crimping dies. The range is completed by locators to support quick, easy and precise work.



High Leverage Combination Pliers



Easier cutting. Powerful gripping, bending and pulling.

- 35% less effort required compared to conventional combination pliers
- easier work due to high leverage design
- with cutting edges (hardness approx. 63 HRC) for soft, hard, piano and ACSR wire
- long cutting edges for thicker cables
- with gripping zones for flat and round material, suitable for versatile use
- High-grade special tool steel; forged, oil-hardened







										Cutting o	apacities	;			
Product Number	←→ ←→ inch mm		Pliers	Head	Handles	Ø inch	Ø inch	Ø inch	₩ AWG	Ø mm	Ø mm	Ø mm	mm²	∆ Ounces	
	Inch	mm					ווועו ש	וווש ש	ש וווכוו	AWG	חוווו ש	וווווו ש	חוווו ש	mm²	Ounces
02 01 180	7 1/4	180					3/32	5/64	29/64	5	2.5	2.0	11.5	16.0	7.1
02 01 200	8	200		black atramentized	polished	plastic coated	7/64	3/32	1/2	3	2.8	2.2	13.0	25.0	10.5
02 01 225	9	225					1/8	3/32	35/64	3	3.0	2.5	14.0	25.0	12.6
02 02 180	7 1/4	180	_		polished	with multi-component grips	3/32	5/64	29/64	5	2.5	2.0	11.5	16.0	8.5
02 02 200	8	200		black atramentized			7/64	3/32	1/2	3	2.8	2.2	13.0	25.0	12.1
02 02 225	9	225		attamentizea			1/8	3/32	35/64	3	3.0	2.5	14.0	25.0	14.4
02 08 200 SBA	8	200	≜ 1000 V	black	polichod	insulated with	7/64	3/32	1/2	3	2.8	2.2	13.0	25.0	12.1
02 08 225 SBA	9	225		atramentized	polished	multi-component grips, VDE-tested	1/8	3/32	35/64	3	3.0	2.5	14.0	25.0	14.4

Combination Pliers

ISO 5746



- with gripping zones for flat and round material, suitable for versatile use
- with cutting edges for soft and hard wire
 long cutting edges for thicker cables
 cutting edge hardness approx. 60 HRC
 Special tool steel; forged, oil-hardened







									Cı	utting ca	apacities				
Product Number	4→	←→		Pliers	Head	Handles	O circula		⊕	&	$\left \begin{array}{c} \mathbb{O} \end{array} \right $	0		3	72
	inch	mm					Ø inch	Ø inch	Ø inch	AWG	Ø mm	Ø mm	Ømm	mm ²	Ounces
03 01 140	5 1/2	140					7/64	5/64	23/64	7	2.8	1.8	9.0	10.0	4.0
03 01 180	7 1/4	180		black atramentized	polished	plastic coated	9/64	3/32	15/32	5	3.4	2.2	12.0	16.0	7.6
03 01 200	8	200	шШ		polisned	plastic coateu	5/32	3/32	33/64	5	3.8	2.5	13.0	16.0	9.7
03 01 250	10	250					5/32	3/32	19/32	3	3.8	2.5	15.0	25.0	17.2
03 02 160	6 1/4	160			polished	with multi-component grips	1/8	5/64	25/64	5	3.1	2.0	10.0	16.0	7.9
03 02 180	7 1/4	180		black atramentized			9/64	3/32	15/32	5	3.4	2.2	12.0	16.0	9.0
03 02 200	8	200				J 1	5/32	3/32	33/64	5	3.8	2.5	13.0	16.0	11.4
03 08 160 SBA	6 1/4	160	<u></u> 1000 V			insulated with multi-	1/8	5/64	25/64	5	3.1	2.0	10.0	16.0	7.9
03 08 180 SBA	7 1/4	180		black atramentized polish	polished	component grips,	9/64	3/32	15/32	5	3.4	2.2	12.0	16.0	9.0
03 08 200 SBA	8	200		adamentized		VDE-tested	5/32	3/32	33/64	5	3.8	2.5	13.0	16.0	11.4

Lineman's Pliers New England Style

ISO 5746 ASME B107.20









- heavy duty
- high transmission ratio for easy cutting
- high leverage design requires 40% less effort compared to conventional combination pliers
- effective cross-hatched knurled gripping zone in the jaws for strong gripping and pulling
- additional serrated gripping zone below the articulated joint for powerful leverage
- with cutting edges for soft, hard and ACSR wire
- cutting edge hardness approx. 64 HRC
- Vanadium electric steel; forged, oil-hardened



Cross hatched serrated gripping zone for firm gripping and pulling, e. g. for fencing

09 11 240 / 09 12 240

includes a crimper and a fish tape puller in the joint gap



Gripping zone below the joint for powerful leverage



Long cutting edges for cutting flat cables



09 11/12 240: Fish tape puller in the joint gap



09 11/12 240: Crimping area below the joint

Product Number	←→ inch	←→ mm		Pliers Head		Handles		Ø inch	Ø mm	Ø mm	∆ ∆ Ounces
09 01 240	9 1/2	240		black atramentized	polished	with non-slip plastic coating	3/16	1/8	4.6	3.0	15.3
09 02 240	9 1/2	240		black atramentized	polished	with multi-component grips	3/16	1/8	4.6	3.0	16.6
09 08 240	9 1/2	240	<u>A</u> 1000 V <u>A</u> €	black atramentized	polished	insulated with multi-component grips, VDE-tested	3/16	1/8	4.6	3.0	16.6
09 11 240	9 1/2	240		black atramentized	polished	with non-slip plastic coating	3/16	1/8	4.6	3.0	15.3
09 12 240	9 1/2	240		black atramentized	polished	with multi-component grips	3/16	1/8	4.6	3.0	16.6



Insulation Strippers



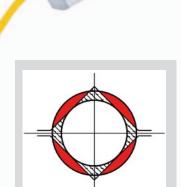




- for single, multiple and fine-stranded conductors with plastic or rubber insulation of a maximum 13/64" diameter. Also suitable for 7 AWG wire.
- easy adjustment to the required diameter of solid or stranded wire with knurled screw and lock nut
- Special tool steel; forged, oil-hardened







Prismatic blade: The red area is cut over four surfaces. Works with highly-elastic materials also.

Product Number	←→ inch	←→ mm		Pliers	Head	Handles	S Ø inch	tripping c	apacities mm²	AWG	∆ ∆ Ounces
11 01 160	6 1/4	160	MM	black atramentized	polished	plastic coated	13/64	5.0	10.0	7	4.6
11 02 160	6 1/4	160	MM	black atramentized	polished	with multi-component grips	13/64	5.0	10.0	7	5.8
11 08 160	6 1/4	160	≙ 1000 V △← △	black atramentized	polished	insulated with multi-component grips, VDE-tested	13/64	5.0	10.0	7	5.9



Electronics Wire Stripping Shears



- for cutting and stripping single, multiple and fine-stranded conductors with diameters up to 3/64" (18 - 32 AWG)
- easy adjustment to the required diameter of solid or stranded wire with knurled screw and lock nut
- with opening spring
- Special tool steel; oil-hardened







			Stripping capacities						
Product	←→	←→		Head	Handles	Ø inch	Ø mm	AWG	47
Number	inch	mm							Ounces
11 82 130	5	130	№ MM	polished	with multi-component grips	up to 3/64	0.03-1.0	18 - 32	2.6



Electronics Wire Stripper



- for single, multiple and fine-stranded cables up to 1/32" dia. with plastic or rubber insulation
- easy adjustment to the required diameter of solid or stranded wire with knurled screw and lock nut
- with opening spring
- the mirror polish, together with a fine film of oil, offer the best possible rust protection – no circuit faults caused by peeling chrome from plated tools
- Special tool steel; forged, oil-hardened

						Strip			
Product	←→	←→		Head	Handles	Ø inch	Ø mm	AWG	77
Number	inch	mm							Ounces
11 92 140	5	140	₩ M M	mirror polished	with multi-component grips	up to 1/32	0.1 - 0.8	18 - 28	3.5



Insulation Stripper with adapted blades



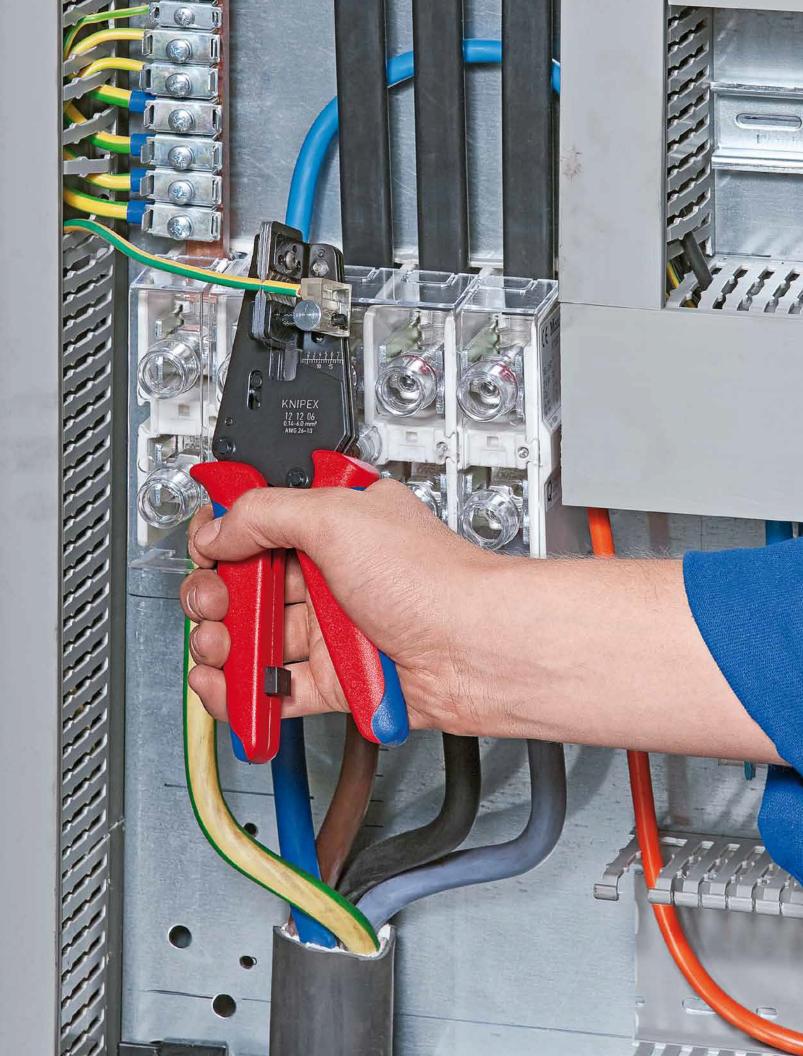
- with replaceable blades for 4 or 6 different conductor cross-sections
- leaves wire undamaged thanks to precision-ground blade shapes, even multi-stranded conductors are stripped gently
- during stripping, the wire is held firmly by clamping jaws
- with length stop for constant stripping length during repetitive work
- pliers body: aluminium
- blade: Special tool steel; oil-hardened





12 21 180: wire cross-sections in mm²

						Stripping cap	pacities			
Product Number	←→	←→		Pliers	Handles	mm²	AWG	47		
Number	inch	mm						Ounces		
12 21 180	7 1/4	180	MM	black lacquered	with plastic grips	0.5-0.75 / 1.0 / 1.5 / 2.5 / 4.0 / 6.0	0-19 / 10 / 11 / 13 / 15 / 17	12.9		
12 29 180	1 pair of spare blades for 12 21 180									



12 12

Precision Insulation Strippers

with adapted blades



12 12 02 ////



12 12 06 ////



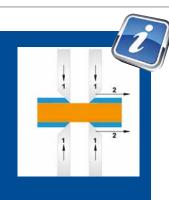
12 12 11 /////

maximum cable cross-section (in mm²) per profile:

Precise and Reliable

Two pairs of blades (1) cut the insulation completely. Then the blade pairs move apart, and thus the insulation is removed form-fit (2).

The pliers opens automatically after the stripping procedure.



- form-fit stripping of both standard and difficult-to-remove insulating materials such as PTFE, silicone, Radox®, Kapton® and rubber including multi-layer insulations
- blades are shaped precisely to the respective conductor cross-section
- an adjustable length stop is perfect for use when cutting the same stripping lengths during repetitive work
- pliers body: steel
- blades: Special tool steel; oil-hardened

12 12 02

with additional cable guide for exact positioning of the conductor in the stripping area of the blades

12 12 11 for solar cables

specially adapted to multi-layered and RADOX® insulation; with additional cable support for multi-layer insulated conductors in the stripping profiles

Kapton® is a registered trademark of E. I. du Pont de Nemours and Company



12 12 02







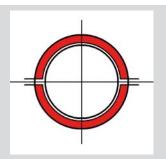


12 12 06 12 12 10 12 12 11 12 12 12

				Pliers Handles	Stripping			
Product	←→ ・	←→			mm²	AWG	7.7	
Number	inch	mm						Ounces
12 12 02	7 1/2	195		burnished with multi-component grips	0.03 - 2.08	14 - 32	15.8	
12 12 06	7 1/2	195			burnished with multi-component grips	0.14 - 6.00	10 - 26	15.7
12 12 10	7 1/2	195	WW			2.5 - 10.0	7 -13	15.7
12 12 11	7 1/2	195				1.5 - 6.0	10 - 15	15.8
12 12 12	7 1/2	195			40-100	7 - 11	15.8	

12 19 02	1 set of spare blades for 12 12 02
12 19 06	1 set of spare blades for 12 12 06
12 19 10	1 set of spare blades for 12 12 10
12 19 11	1 set of spare blades for 12 12 10
12 19 12	1 set of spare blades for 12 12 17

WIRE STRIPPERS AND DISMANTLING TOOLS



Principle of operation with shaped blades

Neat and precise stripping with a circular cut around the conductor. Perfect for working with conductors which must be stripped precisely.

For use when working with PTFE, RADOX® and multi-layer insulation.



12 12 02 with cable guide and length stop



Precise cutting of the insulation



The precise shape of the blades leads to perfect stripping



Automatic stripping of the insulation





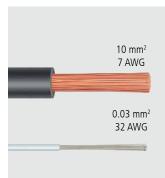
Self-Adjusting Insulation Strippers

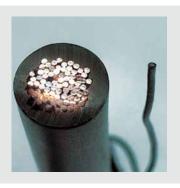


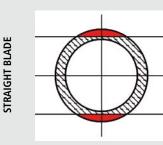
- for single, multiple and fine-stranded conductors with standard plastic or rubber insulation
- adjusts automatically to the respective cable cross-section which prevents damage to the conductor
- cutting depth can be adjusted for different insulation materials
- with wire cutter for copper and aluminium wires, multi-stranded up to 7 AWG and single-stranded up to 10 AWG
- smoothly operating mechanism
- replaceable blade and plastic clamping jaws
- light weight
- body: fiberglass-reinforced
- blade: Special tool steel; oil-hardened

12 40 200

for thin ribbon cables up to 7 AWG width in a single pass









Wire cutter for multi-stranded wire cables up to 10.0 mm² / 7 AWG



Adjustable length stop



Precise stripping prevents damage to the conductor

Product						capacities	Lengt		
		←→	4▶		mm²	AWG	inch	mm	
	Number	inch	mm						Ounces
	12 40 200	8	200	MM	0.03 - 10.0	7 - 32	1/8 - 23/32	3.0 - 18.0	7.1
	12 50 200	8	200	MM	2.5 - 16.0	5 -13			7.0

12 49 01	1 pair of spare blades for 12 40 200
12 49 02	1 pair of spare clamping jaws for 12 40 200
12 49 03	Spare length stop for 12 40 200
12 59 01	1 pair of spare blades for 12 50 200
12 59 02	1 pair of spare clamping jaws for 12 50 200



KNIPEX MultiStrip 10

Automatic Insulation Stripper

(PATENTED)



Mode of operation of straight

Models 12 40 200 and 12 42 195

An incision is made in the red area only.

Not suitable for highly-flexible or armored insulation materials or for multi-layered insulation.

Patented mechanics

The cutting capability of the stripping blade adapts to the diameter and thickness of all standard insulating materials. There is no need for manual adjustment like other tools.

Stripping without readjustment from 7 to 32 AWG

- automatic adjustment to single, multi- and fine-stranded conductors with standard insulation. Range of 7 to 32 AWG.
- no manual adjustment required; no damage to the conductors
- steel clamping jaws with integrated cutting edges hold the cable and prevent slipping
- with wire cutter for copper and aluminium conductors, multi-stranded up to 7 AWG and single-stranded up to 10 AWG
- light weight
- replaceable blades and length stop
- handle with soft-plastic zone for a steady grip
- body: plastic, fiberglass-reinforced
- blade: Special tool steel; oil-hardened



Wire cutter for multiple stranded wire cables up to 10.0 \mbox{mm}^{2} / 7 AWG



Steel restrain jaws with cutting edges avoid skidding of the cable



Precise stripping from 7 - 32 AWG without readjustment

				Stripping	capacities		
Product	←→	←→		mm²	AWG	△△	
Number	inch	mm				Ounces	
12 42 195	7 1/2	195	WW	0.03 - 10.0	7 - 32	4.8	

12 49 21	Spare blades block for 12 42 195
12 49 23	Spare length stop for 12 42 195

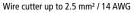
Automatic Insulation Stripper

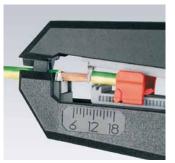


- compact standard tool at a favorable price for all current cable cross-sections and insulating materials
- for single, multiple and fine-stranded cables of 10 AWG to 24 AWG with standard insulation
- adapts automatically to the respective cable cross-section preventing damage to the conductor
- ergonomic and lightweight
- narrow head style for use in confined areas
- with wire cutter for copper and aluminium wires up to 14 AWG
- with adjustable length stop from 15/64" 23/32" for stripping the same lengths during repetitive work
- body: plastic, fiberglass-reinforced
- blades: Special tool steel; oil-hardened, interchangeable













Stripping in confined areas

					capacities	
Product Number	←→	←→		mm²	AWG	47
Number	inch	mm				Ounces
12 62 180	7 1/4	180	MM	0.2 - 6.0	10 - 24	5.3
12 69 21						

12 69 21 I pair of spare blades for 12 62 12 69 23 Spare length stop for 12 62 180



Automatic Insulation Stripper for flat cable



- for PVC-insulated flat cables up to a max. 15/32" width and 14 AWG to 19 AWG
- adapts automatically to the various conductor heights which prevents damage to the conductor
- allows long stripping lengths
- replaceable blade
- smoothly operating mechanism
- lightweight
- body: fiberglass-reinforced
- blade: Special tool steel; oil-hardened

				Stripping					
Product Number	←→ inch	←→ mm		mm²	AWG	∆∆ Ounces			
12 64 180	7 1/4	180	MM	0.75 - 2.5	14 - 19	4.4			
12 69 31	1 pair of spare blades for 12 64 180								



12 80

Mini Stripping Tool



12 80 040 SB

for thin copper conductors dia. 0.12 to 0.4 mm (26 - 36 AWG)

Product	4→	4→		Stripping Ø mm	capacities AWG	7.7	
Number	inch	mm				Ounces	
12 80 040 SB	4	100	WW	0.12 - 0.4	26 - 36	1.2	

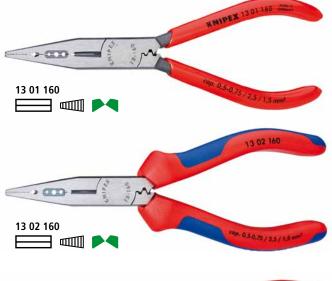
- precise stripping because of the tool's gradual adjustment to the conductor's diameter
- with wire cutter
- adjustable length stop from 5/32" 19/32"
- with locking device
- housing: plastic, impact-resistant

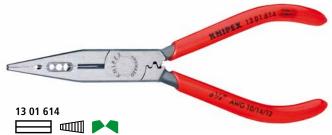




13

Electrician's Pliers





- the ideal pliers for cable work
- for gripping and bending wire
- for cutting soft, medium and hard wire
- precision cutting edges additionally hardened, cutting edge hardness approx. 60 HRC
- with precision stripping holes
- for crimping end sleeves (ferrules)
- Vanadium electric steel; forged, oil-hardened



Gripping



Stripping



Cutting



Crimping 0.5 to 2.5 mm² / AWG 14 - AWG 20

Product Number	←→ inch	←→ mm	Pliers	Head	Handles	Stripping capacities		Cutting ca	O		∆ ∆ Ounces
13 01 160	6 1/4	160	black atramentized	polished	plastic coated	0.5 - 0.75 / 1.5 / 2.5 mm ²	3/32	1/16	2.5	1.6	4.0
13 02 160	6 1/4	160	black atramentized	polished	with multi-com- ponent grips	0.5 - 0.75 / 1.5 / 2.5 mm ²	3/32	1/16	2.5	1.6	5.0
13 01 614	6 1/4	160	black atramentized	polished	plastic coated	10 / 12 / 14 AWG	3/32	1/16	2.5	1.6	4.0

Installation Pliers



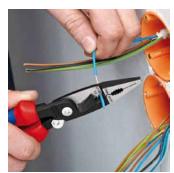




13 88 8 ≙ 1000 V 🏖 🗲 🔙 🦳 👊 😩 🗖 🖫

- multifunctional pliers for the electrical installation; for cutting cable, stripping and crimping end sleeves (ferrules), to grip flat and round material, for bending, deburring
- 6 functions in one pair of pliers
- smooth surfaces near the tips grip single conductors without damaging them; serrated gripping surfaces and pipe grip for gripping flat and round material
- clear-cut outside edge on the jaw for working on flush-mounted junction boxes and deburring feed-through holes
- stripping holes for 12 + 14 AWG
- crimp die for end sleeves (ferrules) 12 20 AWG
- cable shears with (induction-hardened) precision cutting edges for copper and aluminium cables up to 19/32" dia.
- slim dimensions for easy access
- bolted joint: precise, zero backlash operation of pliers
- High-grade special tool steel; forged, oil-hardened









Product Number	←→ inch		Pliers	Head	Handles	Stripping capacity for cross-sections AWG	Crimping capacity AWG	∆ ∆ Ounces
13 81 8	8		black atramentized	polished	plastic coated	12 + 14	12 - 20	9.3
13 82 8	8		black atramentized	polished	with multi-component grips	12 + 14	12 - 20	9.9
13 88 8	8	£1000 V Æ € □ □ □ □ ■ ② ■ ③ ■	black atramentized	polished	insulated with multi-component grips, VDE-tested	12 + 14	12 - 20	9.9

Product Number	←→ mm		Pliers	Head	Handles	Stripping capacity for cross-sections AWG	Crimping capacity mm²	∆∆ Ounces
13 81 8	200		black atramentized	polished	plastic coated	12 + 14	0.5 - 2.5	9.3
13 82 8	200		black atramentized	polished	with multi-component grips	12 + 14	0.5 - 2.5	9.9
13 88 8	200	<u>A</u> 1000 V <u>A</u> € □ □ □	black atramentized	polished	insulated with multi-component grips, VDE-tested	12 + 14	0.5 - 2.5	9.9



Coated-Wire Stripping Tweezers



15 11 120

Product	←→	←→	Stripping Ø inch	capacities	ے
Number	inch	mm		Ø mm	Ounces
15 11 120	4 1/2	120	1/64	0.6	1.2

- for stripping off varnished insulation on copper wires
- blades for other wire diameters available as spare parts
- tweezers body: spring steel; oil-hardened
- handle shells: plastic



Product Number	
15 19 006	1 pair of spare blades for 15 11 120 Ø 1/64 in (0.6 mm)
15 19 008	1 pair of spare blades for 15 11 120 Ø 1/32 in (0.8 mm)



Dismantling Tool



16 20 16 SB MM

Product	←→	←→		Stripping o	capacities	ے
Number	inch	mm		Ø inch	Ø mm	Ounces
16 20 16 SB	5 1/4	130	WM	5/32 - 5/8	4.0 - 16.0	1.2

- for stripping all common round cables
- self-cocking holding lever
- with adjusting screw for cutting depth adaptation
- turnable blade for circular and longitudinal cutting
- spare blade inside the handle
- secure grip due to soft component material on handle and holding lever to avoid slipping
- housing: plastic, impact-resistant



16 20 165 SB with knife and hook blade inclusive protective cap

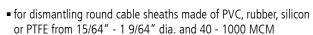


Dismantling Tool



16 30 135 SB /////





- self-cocking holding lever
- with knurled nut for cutting depth adjustment
- changing from circular to longitudinal cutting by turning the tool body
- spiral cutting for removing intermediate pieces
- replaceable blade
- housing: plastic, impact-resistant





					Stripping capacities		
Product	←→	←→		Ø inch	Ømm	MCM	₹
Number	inch	mm					Ounces
16 30 135 SB	5 1/4	135	MM	15/64 - 1 9/64	6.0 - 29.0	40 - 1000	4.2



Dismantling Tool



16 40 150 SB



Adjustable cutting depth

Product			Stripping	capacities	4
Number	inch	←→ mm	Ø inch	Ø mm	∆ ∆ Ounces
16 40 150 SB	6	150	1	> 25	7.4
16 49 150		Spare blac	de for 16 40 1	50 SB	

- for dismantling round cables exceeding 1" in dia.
- removes all kinds of insulation layers
- suitable for longitudinal and circular cutting
- cutting depth can be adjusted up to 13/64"
- replaceable blade (both sides can be used)
- tool body: plastic, fiberglass-reinforced



Setting the tool for longitudinal cut



Longitudinal cut



Turning the tool for circumferential cut



Circular cut



Dismantling Tool for data cables



16 65 125 SB ////

- for stripping UTP and STP data cables with diameters of 11/64" to 25/64"
- stripping device for 11 24 AWG
- double shell, folding back stripping tool
- with opening spring and locking lever
- clip for safe transport
- body: plastic, fiberglass-reinforced



Product Number	←→ inch	←→ mm		Types of cables	Ø inch	Stripping Ø mm	capacities AWG	mm²	ے Ounces
16 65 125 SB	5	125	ΛWΛ	CAT 5, CAT 6, CAT 7, Twisted-Pair (UTP/STP)	11/64 - 25/64	4.5 - 10.0	11 - 24	0.2 - 4.0	1.8

19 01 130

8 🖂 💌

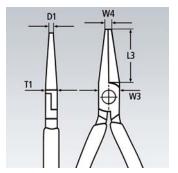
Round Nose Pliers with cutting edge

(Jewelers' Pliers) ISO 5743

- for fine wire and working with jewelery
- ideal for cutting and bending work, also in electronics
- for bending wire loops
- precision-ground smooth, round jaws with fine, pointed tips
- cutting edges additionally hardened, cutting edge hardness approx. 60 HRC
- Vanadium electric steel; forged, oil-hardened



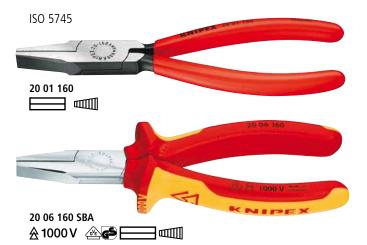




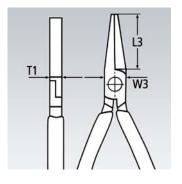
Product Number	←→ inch		Pliers	Head	Handles				W3 inch	W4 inch	Cutting of Outling Outline Out	apacities O Ø inch	∆ ∆ Ounces
19 01 130	5 1/8	8	black atramentized	polished	plastic coated	3/64	1 17/64	5/16	17/32	5/64	3/32	1/16	2.6
Product Number	←→ mm		Pliers	Head	Handles	D1 mm	Dir L3 mm	mensions T1 mm	W3 mm	W4 mm	Cutting of O	apacities O Ø mm	ے ا Ounces
19 01 130	130	8	black atramentized	polished	plastic coated	1.0	32.0	8.0	13.5	2.0	2.2	1.6	2.6



Flat Nose Pliers



- flat, short and wide jaws
- serrated gripping surfacesChrome vanadium electric steel; forged, oil-hardened



									Dimensio	ons			
Product Number	←→ inch	←→ mm		Pliers	Head	Handles	L3 inch	W3 inch	T1 inch	L3 mm	W3 mm	T1 mm	∆ ∆ Ounces
20 01 125	5	125					1 1/16	37/64	5/16	27.0	14.5	8.0	2.6
20 01 140	5 1/2	140		black		ulanta arakad	1 3/32	39/64	3/8	28.0	15.5	9.5	3.8
20 01 160	6 1/4	160		atramentized	polished	plastic coated	1 3/16	43/64	3/8	30.0	17.0	9.5	5.1
20 01 200	8	200					1 1/2	53/64	15/32	38.0	21.0	12.0	9.5
20 06 160	6 1/4	160	≜1000 V △ €	chrome plated		insulated with multi-component grips, VDE-tested	1 3/16	43/64	3/8	30.0	17.0	9.5	5.1

22

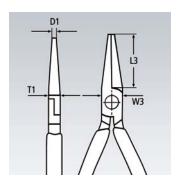
Round Nose Pliers



- for bending wire loops
- round, short jaws; smooth ground
- Chrome vanadium electric steel; forged, oil-hardened





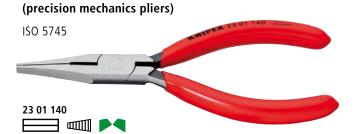


22 08 160 SBA **★** 1000 V **♣ ♣** 8 **□**

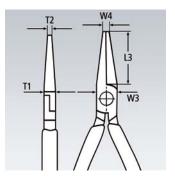
Product Number	←→ inch	←→ mm		Pliers	Head	Handles	L3 inch	W3 inch	D D1 inch	imensioi T1 inch	ns L3 mm	W3 mm	D1 mm	T1 mm	∆ Ounces
22 01 125	5	125					1 1/16	37/64	5/64	5/16	27.0	14.5	2.0	8.0	2.6
22 01 140	5 1/2	140	0—1	black			1 3/32	21/32	7/64	3/8	28.0	16.5	2.5	9.5	3.5
22 01 160	6 1/4	160	8	atramentized	polished	with	1 3/16	23/32	1/8	3/8	30.0	18.0	3.0	9.5	4.9
22 01 180	6 1/4	180					1 3/8	53/64	9/64	13/32	35.0	21.0	3.5	10.5	6.2
22 02 140	5 1/2	140	8	black	polished		1 3/32	21/32	7/64	3/8	28.0	16.5	2.5	9.5	4.6
22 02 160	7 1/4	160		atramentized	polistieu	multi-component grips	1 3/16	23/32	1/8	3/8	30.0	18.0	3.0	9.5	6.0
22 08 160 SBA	7 1/4	160	à1000∨ @ €	black atramentized	polished	insulated with multi-com- ponent grips, VDE-tested	1 3/16	23/32	1/8	3/8	30.0	18.0	3.0	9.5	6.0

23

Flat Nose Pliers with cutting edges



- suitable for gripping and cutting work in fine mechanics
- flat, long and tapered jaws
- cutting edges additionally induction hardened, cutting edge hardness approx. 60 HRC
- High-grade special tool steel; forged, oil-hardened



Product Number	←→ inch	Head	Handles	Cutting c Ø inch	apacities Ø inch	T1 inch	[L3 inch	Dimension: W3 inch	W4 inch	T2 inch	∆∆ Ounces
23 01 140	5 1/2	polished	plastic coated	7/64	1/16	9/32	1 3/8	1/2	1/8	3/16	2.6
Product Number	←→ mm	Head	Handles	Cutting c	apacities Ø mm	T1 mm	L3 mm	Dimension W3 mm	s W4 mm	T2 mm	∆¹∆ Ounces
23 01 140	140	polished	plastic coated	2.5	1.6	7.0	35.0	12.5	3.0	4.5	2.6

Snipe Nose Side Cutting Pliers

(radio pliers)

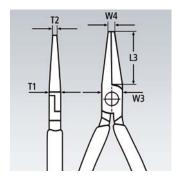


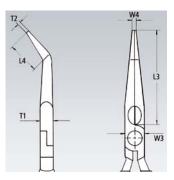
- suitable for fine gripping and cutting workpointed, half-round jaws

- pointed, hair-found jaws
 serrated gripping surfaces
 with cutting edges for soft, medium and hard wire
 cutting edges additionally induction hardened, cutting edge hardness approx. 61 HRC
- Vanadium electric steel; forged, oil-hardened









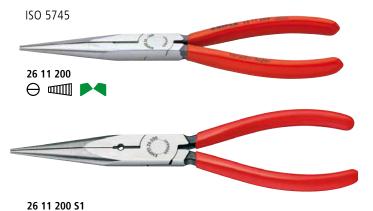
						Cutting	capacities			Dimen	sions			
Product Number	←→ inch		Pliers	Head	Handles	● Ø inch	Ø inch	L3 inch	L4 inch	W3 inch	T1 inch	W4 inch	T2 inch	∆ ∆ Ounces
25 01 125	5	^ -				3/32	1/16	1 1/16		1/2	9/32	3/32	5/64	2.6
25 01 140	5 1/2	Θ	black atramentized	polished	plastic coated	3/32	1/16	1 21/32		19/32	5/16	3/32	5/64	3.1
25 01 160	6 1/4		atiamentizea			3/32	1/16	1 31/32		21/32	23/64	1/8	3/32	4.0
25 02 140	5 1/2	Θ	black		with multi-component	3/32	1/16	1 21/32		19/32	5/16	3/32	5/64	3.8
25 02 160	6 1/4		atramentized	polished	grips	3/32	1/16	1 31/32		21/32	23/64	1/8	3/32	5.1
25 08 160 SBA	6 1/4	≙1000V △►8	black atramentized	polished	insulated with multi-component grips, VDE-tested	3/32	1/16	1 31/32		21/32	23/64	1/8	3/32	5.1
25 21 160	6 1/4	<u>∠40°</u> ⊖	black atramentized	polished	plastic coated	3/32	1/16	1 31/32	29/32	21/32	23/64	1/8	3/32	4.0
						Cutting	capacities			Dimen	sions			
Product Number	←→ mm		Pliers	Head	Handles	⊕ Ø mm	Ø mm	L3 mm	L4 mm	W3 mm	T1 mm	W4 mm	T2 mm	∆ ∆ Ounces
25 01 125	125					2.2	1.6	27.0		13.0	7.0	2.5	1.8	2.6

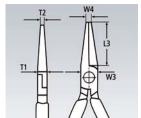
	Droduct		i		C					Dimens	sions			
Product Number	←→ mm		Pliers	Head	Handles	Ø mm	Ø mm	L3 mm	L4 mm	W3 mm	T1 mm	W4 mm	T2 mm	∆ ∆ Ounces
25 01 125	125	O	la la al.			2.2	1.6	27.0		13.0	7.0	2.5	1.8	2.6
25 01 140	140	Θ	black atramentized	polished	plastic coated	2.5	1.6	42.0		15.0	8.0	2.5	2.0	3.1
25 01 160	160		attamentizea			2.5	1.6	50.0		16.5	9.0	3.0	2.5	4.0
25 02 140	140	Θ	black		with multi-component	2.5	1.6	42.0		15.0	8.0	2.5	2.0	3.8
25 02 160	160		atramentized	. polisnea	grips	2.5	1.6	50.0		16.5	9.0	3.0	2.5	5.1
25 08 160 SBA	160	≜1000 V △ ● 8	black atramentized	polished	insulated with multi- component grips, VDE-tested	2.5	1.6	50.0		16.5	9.0	3.0	2.5	5.1
25 21 160	160	<u>√</u> 40° ⊖	black atramentized	polished	plastic coated	2.5	1.6	50.0	23.0	16.5	9.0	3.0	2.5	4.0

Snipe Nose Side Cutting Pliers

(stork beak pliers)

 $\Theta \blacksquare \blacksquare$

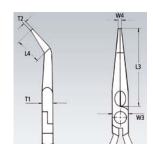




• half-round, long, pointed jaws

Elastic tips: stable even when twisted

for soft, medium hard and hard wire ■ Vanadium electric steel; forged, oil-hardened





• resilient precision tips snap back into place even after being twisted

• with additionally hardened cutting edges (hardness approx. 61 HRC)







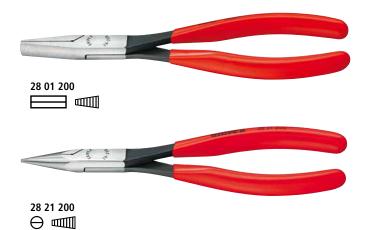
						Cutting c	apacities			Dime	nsions			
Product Number	←→ inch		Pliers	Head	Handles	Ø inch	Ø inch	L3 inch	L4 inch	T1 inch	W3 inch	W4 inch	T2 inch	∆ Ounces
26 11 200	8	$\Theta \blacksquare \blacksquare \blacksquare \blacksquare$	black	polished	plastic coated	1/8	3/32	2 7/8		3/8	11/16	1/8	3/32	6.0
26 11 200 S1	8		atramentized	polished	plastic coated	1/8	3/32	2 7/8		3/8	11/16	1/8	3/32	6.0
26 18 200 SBA	8	≙ 1000 V △ €	black atramentized	polished	insulated with multi-component grips, VDE-tested	1/8	3/32	2 7/8		3/8	11/16	1/8	3/32	6.0
26 12 200	8	Θ	black atramentized	polished	with multi-component grips	1/8	3/32	2 7/8		3/8	11/16	1/8	3/32	7.1
26 21 200	8	<u>√40°</u> ⊖ ■■	black atramentized	polished	plastic coated	1/8	3/32	2 7/8	29/32	3/8	11/16	1/8	3/32	6.0
26 28 200 SBA	8	<u>√40° ≜1000</u> V <u>△</u>	black atramentized	polished	insulated with multi-com- ponent grips, VDE-tested	1/8	3/32	2 7/8	29/32	3/8	11/16	1/8	3/32	6.0
26 22 200	8	<u>∠40°</u> ⊖ ■■	black atramentized	polished	with multi-component grips	1/8	3/32	2 7/8	29/32	3/8	11/16	1/8	3/32	6.9

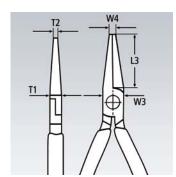
Product Number	←→ mm		Pliers	Head	Handles	Cutting of Ø mm	apacities Ø mm	L3 mm	L4 mm	Dimei T1 mm	nsions W3 mm	W4 mm	T2 mm	∆ Ounces
26 11 200	200	$\theta = 1$	black	polished	plastic coated	3.2	2.2	73.0		9.5	17.5	3.0	2.5	6.0
26 11 200 S1	200		atramentized	polished	plastic coated	3.2	2.2	73.0		9.5	17.5	3.0	2.5	6.0
26 18 200 SBA	200	≜1000 V △€	black atramentized	polished	insulated with multi-component grips, VDE-tested	3.2	2.2	73.0		9.5	17.5	3.0	2.5	6.0
26 12 200	200	$\Theta \blacksquare \triangleright$	black atramentized	polished	with multi-component grips	3.2	2.2	73.0		9.5	17.5	3.0	2.5	7.1
26 21 200	200	<u>∠40°</u> ⊖ ■■	black atramentized	polished	plastic coated	3.2	2.2	73.0	23.0	9.5	17.5	3.0	2.5	6.0
26 28 200 SBA	200	<u>√40° & 1000 V</u> <u>△</u> © ⊕ <u></u> <u> —</u> <u>—</u> <u>—</u> <u>—</u> <u>—</u> <u>—</u> <u>—</u> <u>—</u> <u>—</u>	black atramentized	polished	insulated with multi-component grips, VDE-tested	3.2	2.2	73.0	23.0	9.5	17.5	3.0	2.5	6.0
26 22 200	200	<u>√40°</u> ⊖ ■■	black atramentized	polished	with multi-component grips	3.2	2.2	73.0	23.0	9.5	17.5	3.0	2.5	6.9

Assembly Pliers

ISO 5743

- suitable for gripping and assembly work
- serrated gripping surfaces
- High-grade special tool steel; forged, oil-hardened





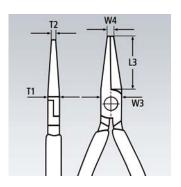
										D	imensior	ıs					
Product	←→	←→		Pliers	Head	Handles	L3	W3	T1	W4	T2	L3	W3	T1	W4	T2	44
Number	inch	mm					inch	inch	inch	inch	inch	mm	mm	mm	mm	mm	Ounces
28 01 200	8	200		black atramentized	polished	plastic coated	1 19/64	17/32	13/32	5/32	13/32	33.0	13.5	10.5	4.0	10.5	6.9
28 21 200	8	200	Θ	black atramentized	polished	plastic coated	1 11/32	17/32	13/32	1/8	1/8	34.0	13.5	10.5	3.0	3.0	6.6

Telephone Pliers



- cross-hatched gripping surfaces, knurled
- Chrome vanadium electric steel; forged, oil-hardened

Style 2 extra slim, fine tips; also suitable for soldering work



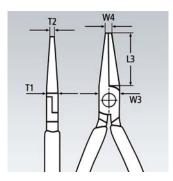
											Di	mensior	ıs					
Product Number	←→ inch	←→ mm		Style	Pliers	Head	Handles	L3 inch	inch	T1 inch	W4 inch	T2 inch	L3 mm	W3 mm	T1 mm	W4 mm	T2 mm	∆ ∆ Ounces
29 11 160	6 1/4	160		1	black atramentized	polished	plastic coated	2 11/64	35/64	5/16	3/32	21/64	55.0	14.0	8.0	2.5	8.5	3.6
29 21 160	6 1/4	160	⊖⋘	2	black atramentized	polished	plastic coated	2 1/8	35/64	23/64	5/64	5/64	54.0	14.0	9.0	2.0	2.0	4

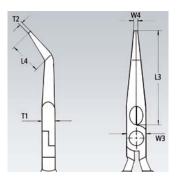
31

Gripping Pliers (needle-nose pliers)



- precision pliers for assembly, bending and adjusting work
- with extra long jaws: length of jaws 2 11/64"
- smooth gripping surfaces
- smooth edges
- Chrome vanadium electric steel; forged, oil-hardened





Product Number	←→ inch	←→ mm		Pliers	Head	Handles	L3 inch	L4 inch	Dimens W3 inch	sions T1 inch	W4 inch	T2 inch	∆ ∆ Ounces
31 11 160	6 1/4	160		black atramentized	polished	plastic coated	2 11/64		5/8	19/64	5/64	3/32	3.5
31 21 160	6 1/4	160	∡ 45° ⊟ <	black atramentized	polished	plastic coated	2 11/64	1 1/16	5/8	19/64	5/64	3/32	3.4
Product	↔	←→		Pliers	Head	Handles	L3	L4	Dimens	T1	W4	T2	44
Product Number	←→ inch	←→ mm		Pliers	Head	Handles	L3 mm				W4 mm	T2 mm	۵۵ Ounces
				Pliers black atramentized	Head polished	Handles plastic coated		L4	W3	T1			



Halogen Bulb Exchange Pliers



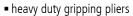
- for the installation of wedge bulb lamps
- plastic coated gripping surfaces
- Chrome vanadium electric steel; forged, oil-hardened

Product Number	←→ inch	←→ mm	Pliers	Head	Handles	۵ ^۱ ۵ Ounces
30 41 160	6 1/4	160	black atramentized	polished	plastic coated	4.2

Long Nose Pliers

ISO 5745





- different jaw styles for a wide range of applications
 Chrome vanadium electric steel; forged, oil-hardened

Style 1

long, trapezoidal jaws; serrated gripping surfaces

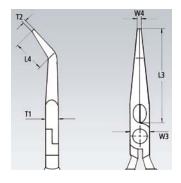
long, half-round jaws; serrated gripping surfaces

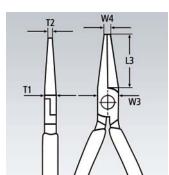
long, round jaws; smooth gripping surfaces











Product Number	←→ inch	←→ mm		Style	Pliers	Head	Handles	L3 inch	W3 inch	T1 inch	Dir W4 inch	nensioi T2 inch	ns L3 mm	W3 mm	T1 mm	W4 mm	T2 mm	∆ ∆ Ounces
30 11 190	7 1/2	190		1	black atramentized	polished	plastic coated	1 3/32	47/64	3/8	1/8	9/32	50.0	18.5	9.5	3.0	7.0	4.9
30 16 160	6 1/4	160	₩ 1000V	1	chrome plated		insulated with multi-component grips, VDE-tested	1 3/32	21/32	3/8	1/8	3/32	50.0	16.5	9.5	3.0	2.5	5.3
30 21 160	6 1/4	160	\oplus	2	black atramentized	polished	plastic coated	1 3/32	21/32	3/8	1/8	3/32	50.0	16.5	9.5	3.0	2.5	4.3
30 31 140	5 1/2	140	8	2	black	polished	plastic coated	1 31/64	19/32	5/16	5/32	5/64	37.5	15.0	8.0	4.0	2.0	2.9
30 31 160	6 1/4	160		3	atramentized	polistied	plastic coated	1 19/32	21/32	3/8	13/64	3/32	41.0	16.5	9.5	5.0	2.5	3.9
30 36 160	6 1/4	160	8 □ ≜1000 V	3	chrome plated		insulated with multi-component grips, VDE-tested	1 19/32	21/32	3/8	13/64	3/32	41.0	16.5	9.5	5.0	2.5	5.0

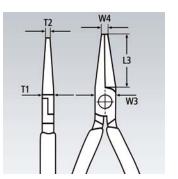
32

Relay Adjusting Pliers

ISO 5235



- for gripping small wires and bending contact and relay springs
- polished gripping surfaces
- smooth edges
- Chrome vanadium electric steel; forged, oil-hardened



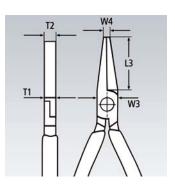


Product Number	←→ inch	←→ mm		Pliers	Head	Handles	L3 inch	W3 inch	T1 inch	D W4 inch	imensioi T2 inch	ns L3 mm	W3 mm	T1 mm	W4 mm	T2 mm	∆∆ Ounces
32 21 135	5 1/4	135		black atramentized	polished	plastic coated	1 11/32	1/2	9/32	1/16	9/64	34.0	12.5	7.0	1.4	3.5	2.6
32 31 135	5 1/4	135	<u>√40°</u> ⊟	black atramentized	polished	plastic coated	1 17/64	1/2	9/32	1/16	9/64	32.0	12.5	7.0	1.4	3.5	2.6





- duckbill shaped jaws 23/64" wide at the tip and tapering to 1/16" thickness
- smooth gripping surfaces
- Chrome vanadium electric steel; forged, oil-hardened



			DI.							imensior						
Product Number	←→ inch	←→ mm	Pliers	Head	Handles	L3 inch	W3 inch	11 inch	W4 inch	T2 inch	mm	W3 mm	mm	W4 mm	T2 mm	∆∆ Ounces
33 01 160	6 1/4	160	black atramentized	polished	plastic coated	2 11/64	19/32	19/64	1/8	23/64	55.0	15.0	7.5	3.0	9.0	3.6
33 03 160	6 1/4	160	chrome plated		plastic coated	2 11/64	19/32	19/64	1/8	23/64	55.0	15.0	7.5	3.0	9.0	3.6

Precision Electronics Gripping Pliers

ISO 9655







The subtle difference

KNIPEX precision electronics pliers are made of high-quality ball bearing steel and processed with the highest degree of care. Each movement is gentle and even and there is no backlash. Each work step proceeds reliably and precisely. This makes work much easier for professionals.

- for very precise assembly work, e.g. in electronics and fine mechanics
- for gripping, holding and bending
- smooth gripping surfaces; smooth edges
- approx. 20% lighter than conventional electronics pliers
- bolted joint and carefully manufactured joint surfaces for even, low-friction movement throughout the entire opening range
- double spring for a gentle and even opening
- ergonomically optimized handle covers
- Chrome vanadium ball-bearing steel; forged

Style 1

flat, wide jaws

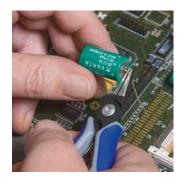
Style 2

half-round jaws

Style 3

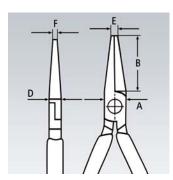
round, pointed jaws

Pliers Sets see page 182









									D	imensior	ıs		
	Product Number	←→ inch		Style	Pliers	Head	Handles	B inch	A inch	D inch	E inch	F inch	∆ ∆ Ounces
		IIICII											Ounces
3	34 12 130	5 1/4		1	burnished	polished	with multi-component grips	55/64	7/16	17/64	1/16	9/64	2.2
3	34 22 130	5 1/4	*OCIEM	2	burnished	polished	with multi-component grips	57/64	7/16	17/64	1/16	1/16	2.2
3	34 32 130	5 1/4	\$8 □ \$ 3MM	3	burnished	polished	with multi-component grips	15/16	7/16	17/64	5/64	3/64	2.1

								D	imensior	าร		
Product	←→		Style	Pliers	Head	Handles	В	Α	D	E	F	₹2
Number	mm						mm	mm	mm	mm	mm	Ounces
34 12 130	135	*====	1	burnished	polished	with multi-component grips	21.9	11.2	6.5	1.4	3.5	2.2
34 22 130	135	*OCIEM	2	burnished	polished	with multi-component grips	22.7	11.2	6.5	1.6	1.6	2.2
34 32 130	135	\$8 ■ \$3 MM	3	burnished	polished	with multi-component grips	23.7	11.2	6.5	2.0	1.0	2.1

Precision Electronics Gripping Pliers ESD

ISO 9655







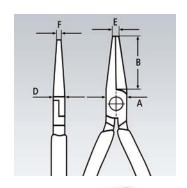
ESD pliers (electrostatic discharge)

- electrostatic energy is discharged through the handles in a gradual and controlled manner
- protects components endangered by electrostatic discharge
- in accordance with applicable standards, e.g. IEC TR 61 340-5, DIN EN 61 340-5, SP Method 2472
- for very precise assembly work, e.g. in electronics and fine mechanics
- for gripping, holding and bending
- electrically discharging handles dissipative
- smooth gripping surfaces; smooth edges
- approx. 20% lighter than conventional electronics pliers
- bolted joint and carefully manufactured joint surfaces for even, low-friction movement throughout the entire opening range
- double spring for a gentle and even opening
- ergonomically optimized handle covers
- Chrome vanadium ball-bearing steel; forged

Style 1 flat, wide jaws

Style 2 half-round jaws

Style 3 round, pointed jaws





			C. I	DI:					imensior		_	
Product Number	←→ inch		Style	Pliers	Head	Handles	B inch	inch	D inch	E inch	inch	∆∆ Ounces
34 12 130 ESD	5 1/4		1	burnished	polished	with multi-component grips	55/64	7/16	17/64	1/16	3/32	2.2
34 22 130 ESD	5 1/4		2	burnished	polished	with multi-component grips	57/64	7/16	17/64	1/16	1/16	2.3
34 32 130 ESD	5 1/4	▲ \$8 □IIM	3	burnished	polished	with multi-component grips	15/16	7/16	17/64	5/64	3/64	2.2

								D	imensior	1S		
Product Number	←→		Style	Pliers	Head	Handles	B mm	A mm	D mm	E mm	F mm	Ounces
	mm											Ounces
34 12 130 ESD	135		1	burnished	polished	with multi-component grips	21.9	11.2	6.5	1.4	3.5	2.2
34 22 130 ESD	135		2	burnished	polished	with multi-component grips	22.7	11.2	6.5	1.6	1.6	2.3
34 32 130 ESD	135	▲ \$8 □\$ \$ M	3	burnished	polished	with multi-component grips	23.7	11.2	6.5	2.0	1.0	2.2

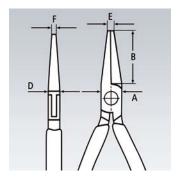
Electronics Pliers



- precision pliers for ultra fine assembly work, e.g. in electronics and fine mechanics
- for gripping, holding and bending
- precision box joint
- smooth gripping surfaces
- smooth edges
- low-friction double spring for gentle and even opening
- the polish with a fine film of oil offers effective rust protection no circuit faults caused by peeling chrome from plated tools
- Special tool steel; forged, oil-hardened



Pliers Sets see page 182













***** ⊖ □ □ M

35 62 145



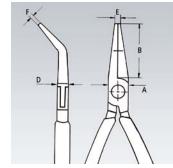
***** 8 **□ □ M**

\$ <u>∠45°</u> ⊖ □ □ MM



35 82 145





						Dimensions										
Product Number	←→ inch	←→ mm		Head	Handles	B inch	A inch	D inch	E inch	F inch	B mm	A mm	D mm	E mm	F mm	∆ ∆ Ounces
35 11 115	4 1/2	115	*====	polished	plastic coated	57/64	3/8	17/64	5/64	5/32	22.5	9.5	6.5	2.0	4.0	2.2
35 12 115	4 1/2	115	*====M	mirror polished	with multi- component grips	57/64	3/8	17/64	5/64	5/32	22.5	9.5	6.5	2.0	4.0	2.5
35 21 115	4 1/2	115	* ⊖□□ M	polished	plastic coated	57/64	3/8	17/64	5/64	1/16	22.5	9.5	6.5	2.0	1.5	2.1
35 22 115	4 1/2	115	*⊖□□M	mirror polished	with multi- component grips	57/64	3/8	17/64	5/64	1/16	22.5	9.5	6.5	2.0	1.5	2.6
35 31 115	4 1/2	115	₩ 8□□ M	polished	plastic coated	57/64	3/8	17/64	5/64	3/64	22.5	9.5	6.5	2.0	1.0	2.0
35 32 115	4 1/2	115	* 8✓□□ M	mirror polished	with multi- component grips	57/64	3/8	17/64	5/64	3/64	22.5	9.5	6.5	2.0	1.0	2.5
35 42 115	4 1/2	115	\$ <u>4</u> 5° ⊖ ₩	mirror polished	with multi- component grips	57/64	3/8	17/64	5/64	1/16	22.5	9.5	6.5	2.0	1.5	2.6
35 52 145	5 3/4	145	*====M	mirror polished	with multi- component grips	1 37/64	15/32	19/64	1/16	5/32	40.0	12.0	7.5	1.5	4.0	3.6
35 62 145	5 3/4	145	*⊖□□M	mirror polished	with multi- component grips	1 37/64	15/32	19/64	3/32	1/16	40.0	12.0	7.5	2.5	1.5	3.6
35 72 145	5 3/4	145	88 □□ M	mirror polished	with multi- component grips	1 37/64	15/32	19/64	3/32	3/64	40.0	12.0	7.5	2.5	1.3	3.5
35 82 145	5 3/4	145	* ∡45° ⊖ □ □ □ MM	mirror polished	with multi- component grips	1 3/8	15/32	19/64	3/32	3/64	35.0	12.0	7.5	2.5	1.0	3.6

Electronics Pliers ESD



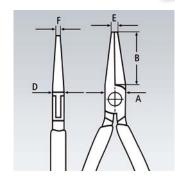


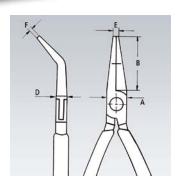


ESD pliers (electrostatic discharge)

- electrostatic energy is discharged through the handles in a gradual and controlled manner
- protects components endangered by electrostatic discharge
- in accordance with applicable standards, e.g. IEC TR 61 340-5, DIN EN 61 340-5, SP Method 2472
- precision pliers for ultra fine assembly work, e.g. in electronics and fine mechanics
- for gripping, holding and bending
- electrically discharging handles dissipative
- precision box joint
- smooth gripping surfaces
- smooth edges
- low-friction double spring for gentle and even opening
- the mirror polish together with a fine film of oil offers effective rust protection – no circuit faults caused by peeling chrome from plated tools
- with two-color dual component handles, black/grey
- Special tool steel; forged, oil-hardened

Pliers Sets see page 182



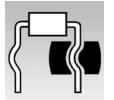


Product Number	←→ inch	←→ mm		Head	Handles	B inch	A inch	D inch	Di E inch	mensio F inch	ns B mm	A mm	D mm	E mm	F mm	۵۵ Ounces
35 12 115 ESD	4 1/2	115	▲ *■ ✓ * M	mirror polished	with multi- component grips	57/64	3/8	17/64	5/64	5/32	22.5	9.5	6.5	2.0	4.0	2.6
35 22 115 ESD	4 1/2	115	△ *⊖□ □ MM	mirror polished	with multi- component grips	57/64	3/8	17/64	5/64	1/16	22.5	9.5	6.5	2.0	1.5	2.6
35 42 115 ESD	4 1/2	115	△ * ∠ 45° ⊖ ☐ ☐ MM	mirror polished	with multi- component grips	57/64	3/8	17/64	5/64	1/16	22.5	9.5	6.5	2.0	1.5	2.6

Electronics Mounting Pliers

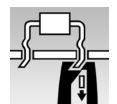
ISO 5743



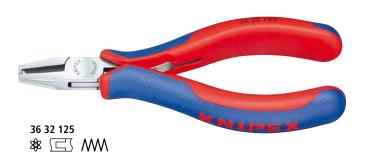


36 12 130 to bend wire in shape for the distance to the plate



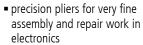


36 22 125 to bend and cut wire at 1/16" length below the plate

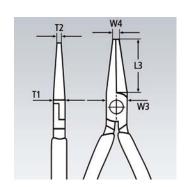


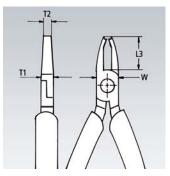


36 32 125 to crunch and cut wire at 1/16" length below the plate



- for bending and cutting off wire ends on components
- precision box joint
- smooth gripping surfaces
- smooth edges
- low-friction double spring for gentle and even opening
- the mirror polish together with a fine film of oil offers effective rust protection — no circuit faults caused by peeling chrome from plated tools
- High-grade special tool steel; forged, oil-hardened





Product Number	←→ inch		Head	Handles	Cutting capacities Ø inch	L3 inch	Di W inch	mension T1 inch	W1 inch	T2 inch	∆ ∆ Ounces
36 12 130	5 1/4	* ⊑.WM	mirror polished	with multi-component grips		29/32	15/32	3/8	7/32	15/64	3.3
36 22 125	5	* ⊆.WM	mirror polished	with multi-component grips	3/64	23/32	29/64	19/64	19/64	3/32	3.3
36 32 125	5	* □ M M	mirror polished	with multi-component grips	3/64	23/32	29/64	19/64	19/64	5/32	3.8

Product Number	←→ mm		Head	Handles	Cutting capacities Ø mm	L3 mm	Di W mm	mensior T1 mm	s W1 mm	T2 mm	∆ ∆ Ounces
36 12 130	130	₩ □.WM	mirror polished	with multi-component grips		23.0	12.0	9.5	5.5	6.0	3.3
36 22 125	125	* □ ™	mirror polished	with multi-component grips	1.2	18.0	11.5	7.5	7.5	2.6	3.3
36 32 125	125	* □ ™	mirror polished	with multi-component grips	1.0	18.0	11.5	7.5	7.5	4.0	3.8

Gripping Pliers for precision mechanics

ISO 9655



- precision pliers for ultra fine assembly work, e.g. in electronics and fine mechanics
- for gripping, holding, bending and adjusting
- precision tips
- smooth gripping surfaces
- smooth edges
- lap joint
- Chrome vanadium electric steel; forged, oil-hardened

Style 1 flat, wide jaws

Style 2

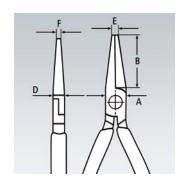
flat, concave and pointed jaws

Style 3

half-round jaws

round, pointed jaws to bend wire loops





Product			Style	Pliers	Head	Handles	В		imension: D	s I E I	F	_
Number	←→ inch		Style	rileis	пеаи	natiules	inch	A inch	inch	inch	inch	∆∆ Ounces
37 11 125	5		1	black atramentized	polished	plastic coated	1 1/16	31/64	9/32	5/64	7/32	2.7
37 21 125	5		2	black atramentized	polished	plastic coated	1 1/16	31/64	9/32	5/64	5/64	2.6
37 31 125	5	Θ□	3	black atramentized	polished	plastic coated	1 1/16	31/64	9/32	5/64	1/16	2.6
37 43 125	5	8	4	chrome plated		plastic coated	1 1/16	37/64	5/16	5/64	3/64	2.7

Product Number	←→ mm		Style	Pliers	Head	Handles	B mm	Di A mm	mension D mm	s E mm	F mm	∆ Ounces
37 11 125	125		1	black atramentized	polished	plastic coated	27.0	12.5	7.0	2.0	5.5	2.7
37 21 125	125		2	black atramentized	polished	plastic coated	27.0	12.5	7.0	2.0	2.0	2.6
37 31 125	125	Θ□	3	black atramentized	polished	plastic coated	27.0	12.5	7.0	2.0	1.6	2.6
37 43 125	125	8	4	chrome plated		plastic coated	27.0	14.5	8.0	2.0	1.0	2.7

37 43 125 $\Theta \square$

Mechanics' Pliers



- high-strength jaws and tips bend and snap back into place easily – no deformation
- cross-hatched gripping surfaces, knurled
- Vanadium electric steel; forged, oil-hardened









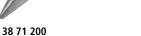
38 31 200 Θ











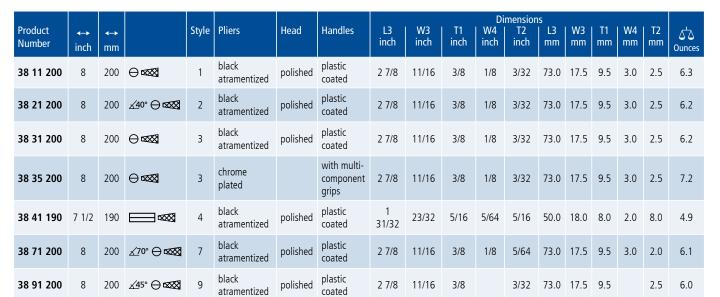


Style 9

45° angled, half-round, long jaws, also suitable for gripping spark plug covers and round components



that are difficult to access



Universal Grip Pliers



40 04 250

- tightly holds round or flat material
- heavy duty
- with adjustment screw and release lever
- one-handed operation
- high clamping pressure due to toggle lever action
- pliers body: rolled steel; high-strength, forged, oil-hardened
- gripping jaws: Chrome vanadium electric steel; forged

Product Number	←→ inch	←→ mm		O∄ inch	inch	inch	O]	mm		∆ ∆ Ounces
40 04 180	7 1/4	180		1 3/8	63/64	1 1/4	35.0	25.0	32.0	10.9
40 04 250	10	250	шШ	1 3/8	1 3/16	1 1/4	35.0	30.0	32.0	18.4

41

Grip Pliers



41 04 250

Style 0 jaws for round workpieces; with wire cutter



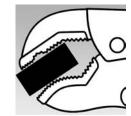
41 14 250



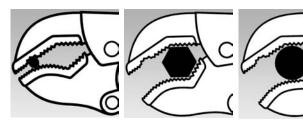
41 34 165

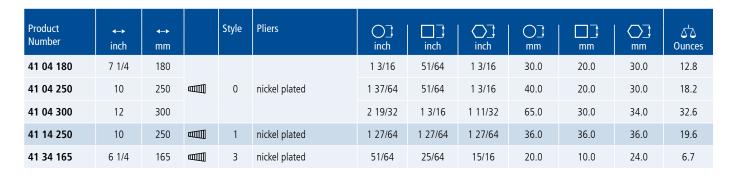
long nose grip pliers; narrow, long jaws

- tightly holds round or flat material
- heavy duty
- with adjustment screw and release lever
- one-handed operation
- high clamping pressure due to toggle lever action
- pliers body: rolled steel; high-strength, forged, oil-hardened
- gripping jaws: Chrome vanadium electric steel; forged



Style 1 jaws with double prism for round, section and flat material







Circlip Pliers

for internal circlips on bore holes









- for fitting circlips on bore holes, range of application from 5/16" - 5 33/64" dia.

 solid style, forged
- non-slip, solid tips
- pliers body and tips: Chrome vanadium steel; forged, oil-hardened

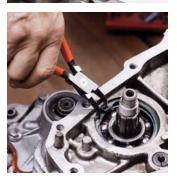


Style 1 DIN 5256 C, straight tips

Style 2 DIN 5254 B; 90° angled tips

Style 3 45° angled tips





Pliers Sets see page 176

Product Number	←→ inch	←→ mm		Style	Pliers	Head	Handles	Size of bore Ø inch	Size of bore Ø mm	∆ ∆ Ounces
44 11 J0	5 3/4	140						5/16 - 33/64	8 - 13	3.1
44 11 J1	5 3/4	140						15/32 - 63/64	12 - 25	3.1
44 11 J2	8	180	O	1	black atramentized	polished	plastic coated	3/4 - 2 23/64	19 - 60	4.8
44 11 J3	9	225						1 37/64 - 3 15/16	40 - 100	6.9
44 11 J4	12 3/4	320						3 23/64 - 5 33/64	85 - 140	16.5
44 21 J01	5 1/4	130	⊜ <i>¥</i> 90°					5/16 - 33/64	8 - 13	3.1
44 21 J11	5 1/4	130						15/32 - 63/64	12 - 25	3.1
44 21 J21	6 3/4	170		2	black atramentized	polished	plastic coated	3/4 - 2 23/64	19 - 60	4.9
44 21 J31	8 1/2	215						1 37/64 - 3 15/16	40 - 100	6.9
44 21 J41	12	300						3 23/64 - 5 33/64	85 - 140	16.3
44 31 J02	5 3/4	140						5/16 - 33/64	8 - 13	3.2
44 31 J12	5 3/4	140	⊘ <u>⊀4</u> 5°					15/32 - 63/64	12 - 25	3.2
44 31 J22	8	180		3	black atramentized	polished	plastic coated	3/4 - 2 23/64	19 - 60	4.9
44 31 J32	9	225		,				1 37/64 - 3 15/16	40 - 100	6.9
44 31 J42	12	310						3 23/64 - 5 33/64	85 - 140	16.4



Circlip Pliers for external circlips on shafts







- for fitting circlips on shafts, range of application from 1/8" 5 33/64" dia.
 solid style, forged
 non-slip, solid tips

- pliers body and tips:
 Chrome vanadium steel; forged, oil-hardened



Style 1

DIN 5254 A; straight tips

Style 2 DIN 5254 B; 90° angled tips

Pliers Sets see page 176

Style 3

45° angled tips





Product Number	←→ inch	←→ mm		Style	Pliers	Head	Handles	Size of shaft Ø inch	Size of shaft Ø mm	∆ ∆ Ounces
46 11 A0	5 3/4	140						1/8 - 25/64	3 - 10	3.0
46 11 A1	5 3/4	140						25/64 - 63/64	10 - 25	3.0
46 11 A2	8	180	OWW	1	black atramentized	polished	plastic coated	3/4 - 2 23/64	19 - 60	4.7
46 11 A3	8 1/4	210						1 37/64 - 3 15/16	40 - 100	7.8
46 11 A4	12 3/4	320						3 23/64 - 5 33/64	85 - 140	17.8
46 21 A01	5	125						1/8 - 25/64	3 - 10	3.0
46 21 A11	5	125	⊜ <i>₹</i> ‱ ₩₩	2				25/64 - 63/64	10 - 25	3.0
46 21 A21	6 3/4	170			black atramentized	polished	plastic coated	3/4 - 2 23/64	19 - 60	4.7
46 21 A31	8	200						1 37/64 - 3 15/16	40 - 100	7.7
46 21 A41	12	300						3 23/64 - 5 33/64	85 - 140	18.0
46 31 A02	5 1/4	130						1/8 - 25/64	3 - 10	2.9
46 31 A12	5 1/4	130						25/64 - 63/64	10 - 25	3.0
46 31 A22	7 1/4	185	<i>∆</i> 45° /	3	black atramentized	polished	plastic coated	3/4 - 2 23/64	19 - 60	4.7
46 31 A32	8 1/4	210		3				1 37/64 - 3 15/16	40 - 100	7.5
46 31 A42	12	310						3 23/64 - 5 33/64	85 - 140	18.0



- for assembling circlips in bore holes within the range of 4 51/64" 15 3/4" dia.
- with locking device can be released without completing cycle
- with replaceable tips made of tempered steel
- black powder-coated
- pliers body: rolled steel, high-strength
- tips: Special tool steel; rolled, oil-hardened

Style 1

DIN 5256 C, straight tips

Style 2

DIN 5256 D; 90° angled tips

Product Number	←→ inch	←→ mm		Style	Pliers	Size of bore Ø inch	Size of bore Ø mm	ے Ounces
44 10 J5	22 1/4	570		1	black powder-coated	4 51/64 - 11 13/16	122 - 300	61.0
44 10 J6	22	580		1	black powder-coated	9 59/64 - 15 3/4	252 - 400	62.0
44 20 J51	23 1/4	590		2	black woulder coated	4 51/64 - 11 13/16	122 - 300	64.0
44 20 J61	23 1/2	600		black powder-coated	9 59/64 - 15 3/4	252 - 400	61.0	

44 19 J6 1 pair of spare tips for 44 10 J6

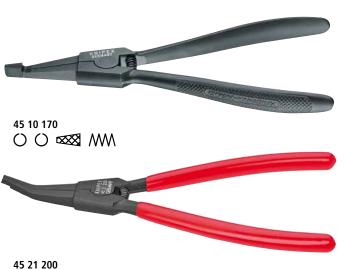
45

Special Retaining Ring Pliers

for retaining rings on shafts ISO 5743

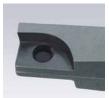


- for fitting horseshoe-shaped spring retaining rings and circlips without grip holes
- for shaft retaining devices
- with opening spring
- Chrome vanadium electric steel; forged, oil-hardened









45 10 170

45 21 200

45 21 200

45 10 170

for retaining rings with a minimum ring split gap of 9/64"

45 21 200

anlged jaws with centering hole; for retaining rings from 15/36" dia., e.g. for securing drive shaft in the gearbox of a motor vehicle; minimum ring split gap of the rings 3/32"

Product Number	←→ inch	←→ mm		Pliers	Handles	ے ا Ounces
45 10 170	6 3/4	170	00 ∞ ₩	burnished		5.5
45 21 200	8	200	O O ₹30° WW	burnished	plastic coated	6.6

○ ○ ₹30° WW



- for assembling circlips on shafts within the range of 4 51/64" 15 3/4" dia.
- $\ \ \, \blacksquare$ with locking device can be released without completing cycle
- with replaceable tips made of tempered steel
- black powder-coated
- pliers body: rolled steel, high-strength
- tips: Special tool steel; rolled, oil-hardened

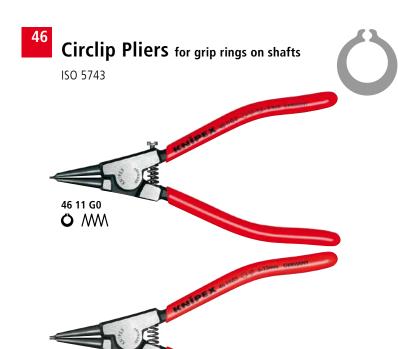
Style 1

DIN 5254 A; straight tips

Stvle 2

DIN 5254 B; 90° angled tips

Product Number	←→ inch	←→ mm		Style	Pliers	Size of shaft Ø inch	Size of shaft Ø mm	۵۵ Ounces
46 10 A5	22 1/2	560	on	1 block condenses and	block pounder control	4 51/64 - 11 13/16	122 - 300	62.5
46 10 A6	22 3/4	570		'	black powder-coated	9 59/64 - 15 3/4	252 - 400	63.3
46 20 A51	22 3/4	570	° ∕00° 5 ′	1	black pourder coated	4 51/64 - 11 13/16	122 - 300	65.0
46 20 A61	22 3/4	580	O X30 E E) <u>⊀9</u> 0° } 2	black powder-coated	9 59/64 - 15 3/4	252 - 400	64.4



46 11 G2 **Ö** MM

- for fitting grip rings on shafts from 1/16" 1 3/16" dia.
- with opening spring
- solid style, forged
- non-slip, solid tips
- pliers body and tips: Chrome vanadium stainless steel; forged, oil-hardened

46 11 G0

for rings of 1/16" - 1 3/16" dia., with adjustable stop screw to prevent overstretching

Product Number	←→ inch	←→ mm		Pliers	Head	Handles	Size of shaft Ø inch	Size of shaft Ø mm	∆ ∆ Ounces
46 11 G0	5 1/2	140	OWW	black atramentized	polished	plastic coated	1/16 - 5/36	1.5 - 4.0	3.1
46 11 G1	5 1/2	140		black atramentized	polished		5/32 - 9/32	4.0 - 7.0	3.0
46 11 G2	5 1/2	140	O.WW			plastic coated	13/64 - 33/64	5.0 - 13.0	3.0
46 11 G3	5 1/2	140	O/VVV				35/64 - 23/32	14.0 - 18.0	3.0
46 11 G4	7 1/4	180					51/64 - 1 3/16	20.0 - 30.0	4.7

Precision Circlip Pliers

for internal circlips in bore holes





Style 1 DIN 5256 C, straight tips

DIN 5256 D; 90° angled tips









Tip-top quality

Easy and reliable assembly: form-fitting inserted and pressedin tips made of high-density spring steel offer a high level of protection against excessive stress and strain, e.g. when removing rings that are stuck. The large supporting surfaces and the position of the tips make it more difficult for the rings to fly off.

With inserted tips for reliable work

- heavy duty for continuous operation: up to 10 times longer service life than turned tips
- bolted joint: precise, zero backlash operation of pliers
- non-slip plastic coating on the handles
- pliers body: Chrome vanadium electric steel; forged, oil-hardened
- inserted tips: spring steel wire, drawn

Precision and durability

High-density spring steel with a score-free surface is used for the tips. This increases the tips' resistance to dynamic and static strain. The tips are 30% more stable than conventional pliers when subjected to one-off overloading, while still allowing good accessibility during assembly. Subjected to dynamic strain, the tips' resistance capacity is up to 10 times greater! The tips on the Precision Circlip Pliers are non-detachable!



Sturdy, inserted tips: made from high-density spring steel



Tight fit through compression

Product Number	←→ inch	←→ mm		Style	Pliers	Handles	Size of bore Ø inch	Size of bore Ø mm	Tip inch	s Ø mm	∆∆ Ounces
48 11 J0	5 3/4	140					5/16 - 33/64	8 - 13	3/64	0.90	3.7
48 11 J1	5 3/4	140					15/32 - 63/64	12 - 25	3/64	1.25	3.7
48 11 J2	8	180	om	1	1 grey atramentized	plastic coated	3/4 - 2 23/64	19 - 60	5/64	1.80	6.2
48 11 J3	9	225					1 37/64 - 3 15/16	40 - 100	3/32	2.25	9.4
48 11 J4	12 3/4	320					3 23/64 - 5 33/64	85 - 140	1/8	3.20	20.5
48 21 J01	5 1/4	130					5/16 - 33/64	8 - 13	3/64	0.90	3.7
48 21 J11	5 1/4	130					15/32 - 63/64	12 - 25	3/64	1.25	3.7
48 21 J21	6 1/2	165	○ ₹ 90° ₹3	2	grey atramentized	plastic coated	3/4 - 2 23/64	19 - 60	5/64	1.80	6.2
48 21 J31	8 1/4	210					1 37/64 - 3 15/16	40 - 100	3/32	2.25	9.3
48 21 J41	12	305					3 23/64 - 5 33/64	85 - 140	1/8	3.20	20.3

Precision Circlip Pliers

for external circlips on shafts







Bolted joint: high precision and smooth action



KNIPEX Precision Circlip Pliers: fit circlips without distortion; easy and quick assembly

With inserted tips for reliable work

- heavy duty for continuous operation:up to 10 times longer service life than turned tips
- large contact faces on the tips: no distortion of circlips, easy fitting
- joint with screw: precise, zero-backlash operation of pliers
- internal opening spring, protected
- non-slip plastic coating on the handles
- pliers body: Chrome vanadium electric steel; forged, oil-hardened
- inserted tips: spring steel wire, drawn

49 31 A0 / Style 3

with additional opening limiter (continuously adjustable opening area); avoids overstretching of small external circlips; DIN 5254 A; straight tips

49 41 A01 / Style 4

with additional opening limiter (continuously adjustable opening area); avoids overstretching of small external circlips; DIN 5254 B; 90° angled tips



Spring inside the joint: the spring is protected inside the precisely bolted joint. It does not hinder work and cannot get dirty or lost.



Style 3 / Style 4: With adjustable restricted opening



Circlips are held securely: large contact faces and the position of the tips make it difficult for the circlip to bounce off



Conventional Circlip Pliers: distortion of the circlip when being fitted is possible

									Tips Ø		
Product Number	←→ inch	←→ mm		Style	Pliers	Handles	Size of shaft Ø inch	Size of shaft Ø mm	inch '	mm	∆ ∆ Ounces
49 11 A0	5 3/4	140					1/8 - 25/64	3 - 10	3/64	0.90	3.6
49 11 A1	5 3/4	140			grey atramentized		25/64 - 63/64	10 - 25	3/64	1.25	3.5
49 11 A2	8	180	OSSIM	1		plastic coated	3/4 - 2 23/64	19 - 60	5/64	1.80	6.0
49 11 A3	9	225					1 37/64 - 3 15/16	40 - 100	3/32	2.25	9.5
49 11 A4	12 3/4	320					3 22/64 - 5 33/64	85 - 140	1/8	3.20	21.0
49 21 A01	5 1/4	130					1/8 - 25/64	3 - 10	3/64	0.90	3.5
49 21 A11	5 1/4	130					25/64 - 63/64	10 - 25	3/64	1.25	3.6
49 21 A21	6 1/2	165	Ů 1 90° € 3 MM	2	grey atramentized	plastic coated	3/4 - 2 23/64	19 - 60	5/64	1.80	5.6
49 21 A31	8 1/4	210					1 37/64 - 3 15/16	40 - 100	3/32	2.25	9.6
49 21 A41	12	305					3 22/64 - 5 33/64	85 - 140	1/8	3.20	21.2
49 31 A0	5 3/4	140	OSSIM	3	grey atramentized	plastic coated	1/8 - 25/64	3 - 10	3/64	0.90	3.6
49 41 A01	5 1/4	130	Ů <u>1</u> 90° € 5 MM	4	grey atramentized	plastic coated	1/8 - 25/64	3 - 10	3/64	0.90	3.6

Circlip Tool

for internal and external circlips



- universally usable for large circlips with nominal diameters of 15 3/4" - 39 3/8"
- reliable opening and closing of the circlips and holding by self-locking precision spindle drive
- for fitting and removing circlips in one operation
- circlips are securely held thanks to short, direct attachment
- replaceable tips with 15/64" and 23/64" diameters; for perfect adaptation to the actuation bores in the circlips
- optional operation with hexagonal key, ratchet wrench or cordless drill
- areas of application e.g. wind turbines, tidal power stations, generator construction, hydropower stations, largemachine construction (rolling mills, presses), shipbuilding and aerospace – wherever very high forces and torques are transmitted with large shafts and bearings
- tip material: Chrome vanadium electric steel

Product	Size of bore	Size of bore	Size of shaft	Size of shaft	∆ ∆
Number	Ø inch	Ø mm	Ø inch	Ø mm	Ounces
46 10 100	15 3/4 - 39 3/8	400 - 1,000	15 3/4 - 39 3/8	400 - 1,000	77.6



Replaceable inserts for internal and external circlips



Manually operable



Machine operable







50

Carpenters' Pincers

ISO 9243



50 01 225

- heavy duty
- the Carpenters' Pincers preferred by tradespeople
- wear-resistant
- cutting edges with additional hardness; cutting edge hardness approx. 60 HRC
- Special tool steel; forged, oil-hardened



Product Number	←→ inch	←→ mm		Pliers	Head	Handles	Cutting ca Ø inch	pacities Ø mm	ے ا Ounces
50 01 160	6 1/4	160					5/64	1.8	7.9
50 01 180	7 1/4	180					5/64	2.0	11.1
50 01 210	8 1/4	210	24		polichod	plactic coated	3/32	2.2	14.5
50 01 225	9	225		black atramentized	polisileu	plastic coateu	3/32	2.2	15.4
50 01 250	10	250					3/32	2.2	20.6
50 01 300	12	300					3/32	2.4	31.9



Carpenters' Pincers

ISO 9243



- with striking face for driving in nails
- cutting edges with additional hardness; cutting edge hardness approx. 60 HRC
- Special tool steel; forged, oil-hardened



Product Number	←→ inch	←→ mm	Pliers	Head	Handles	∆ ∆ Ounces
51 01 210	8 1/4	210	black atramentized	polished	plastic coated	14.6



Farriers' Pincers

ISO 5743



- the ideal pliers for the farrier
- with small head and reversing groove
- also suitable for dismantling work in vehicle body workshops
- cutting edges with additional hardness; cutting edge hardness approx. 59 HRC
- Special tool steel; forged, oil-hardened



Product Number	↓→ inch	←→ mm	Pliers	Head	Head inch	width mm	ے Ounces
55 00 300	12	300	black atramentized	polished	51/64	20.0	28.0

Farriers' Pincers

ISO 5743



- the ideal pliers for the farrier
- suitable for dismantling work in vehicle body workshops
- also for dismantling work with timber and metal
- cutting edges with additional hardness; cutting edge hardness approx. 59 HRC
- Special tool steel; forged, oil-hardened

5/	UU	360
_		



						Head	width	
Product	←→	←→		Pliers	Head	inch	mm	Δ
Number	inch	mm						Ounces
57 00 360	14 1/4	360	P	black atramentized	polished	1 13/64	30.5	41.1



Concretors' Nippers

ISO 9242

- to twist and cut wire in one operation; fast, reliable and economical
- unobtained precision and long service life make these the most widely purchased concretors' nippers in the world
- cutting edges with additional hardness; cutting edge hardness approx. 61 HRC
- High-grade special tool steel; forged, oil-hardened











99 01 220







					Hood Handles		Cutting c	apacities			
Product Number	←→ inch	←→ mm		Pliers	Head	Handles	Ø inch	Ø inch	Ø mm	Ø mm	∆∆ Ounces
99 00 200	8	200					5/64	1/16	1.8	1.4	8.1
99 00 220	8 3/4	220		black atramentized pol			3/32	1/16	2.4	1.6	11.1
99 00 250	10	250			polished		3/32	1/16	2.4	1.6	11.8
99 00 280	11	280					7/64	5/64	2.8	1.8	16.0
99 00 300	12	300					1/8	5/64	3.1	1.8	18 .0
99 01 200	8	200					5/64	1/16	1.8	1.4	8.7
99 01 220	8 3/4	220					3/32	1/16	2.4	1.6	11.8
99 01 250	10	250		black atramentized	polished	plastic coated	3/32	1/16	2.4	1.6	15.1
99 01 280	11	280					7/64	5/64	2.8	1.8	17.6
99 01 300	12	300					1/8	5/64	3.1	1.8	19.3



High Leverage Concretors' Nippers

high lever transmission

ISO 9242















25% reduction in required force compared to conventional concretor's pliers of the same size

- for use when working with concrete steel and binding wire
- twists and cuts wire in one operation
- high leverage joint minimizes strain when working with thick wires
- extra slim design for reaching into deep or confined areas
- high leverage design reduces strain on tendons and muscles
- cutting edge hardness approx. 61 HRC
- High-grade special tool steel; forged, oil-hardened







							Cutting c	apacities		Head \	width	
Product	←→	←→	Pliers	Head	Handles					inch	mm	47
Number	inch	mm				Ø inch	Ø inch	Ø mm	Ø mm			Ounces
99 10 250	10	250	black atramentized	polished		1/8	5/64	3.3	1.8	29/32	23.0	12.3
99 10 300	12	300	black atramentized	polistieu		5/32	5/64	3.8	2.0	63/64	25.0	17.7
99 11 250	10	250	black atramentized	polichod	plastic coated	1/8	5/64	3.3	1.8	29/32	23.0	12.3
99 11 300	12	300	DIACK atramentized	polished		5/32	5/64	3.8	2.0	63/64	25.0	18.9
99 14 250	10	250	niskal plated			1/8	5/64	3.3	1.8	29/32	23.0	12.3
99 14 300	12	300	nickel plated			5/32	5/64	3.8	2.0	63/64	25.0	17.6

61

Bolt End Cutting Nippers

high lever transmission

ISO 5743



61 01 200 <u>85°</u>

Powerful, compact, comfortable

- features a greater cutting capacity and requires less effort than conventional end cutting nippers
- cuts nails, small bolts and all wires including piano wire
- exceptional cutting capacity due to high leverage joint
- cutting edge hardness approx. 64 HRC
- Vanadium electric steel; forged, oil-hardened



High cutting performance: also for piano wire



Almost flush cutting of bolts, nails etc.



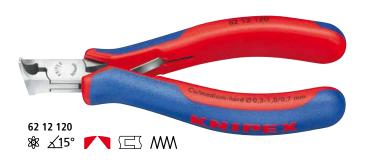
Perfect for use when working with fencing

Product Number	←→ inch		Pliers	Head	Handles	Cut O Ø inch	ting capa Ø inch	ecities Ø inch	O Ø inch	ے Ounces
61 01 200	8	<u>√8</u> 5° ▶ ◀	black atramentized	polished	plastic coated	3/64 - 15/64	5/32	9/64	1/8	15.3
Product Number	←→ mm		Pliers	Head	Handles	Cut Ø mm	ting capa D Ø mm		Ø mm	∆¹∆ Ounces
61 01 200	200	<u> </u>	black atramentized	polished	plastic coated	1.0 - 6.0	4.0	3.5	3.0	15.3

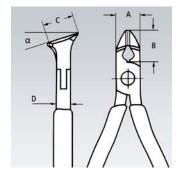


Electronics Oblique Cutting Nippers

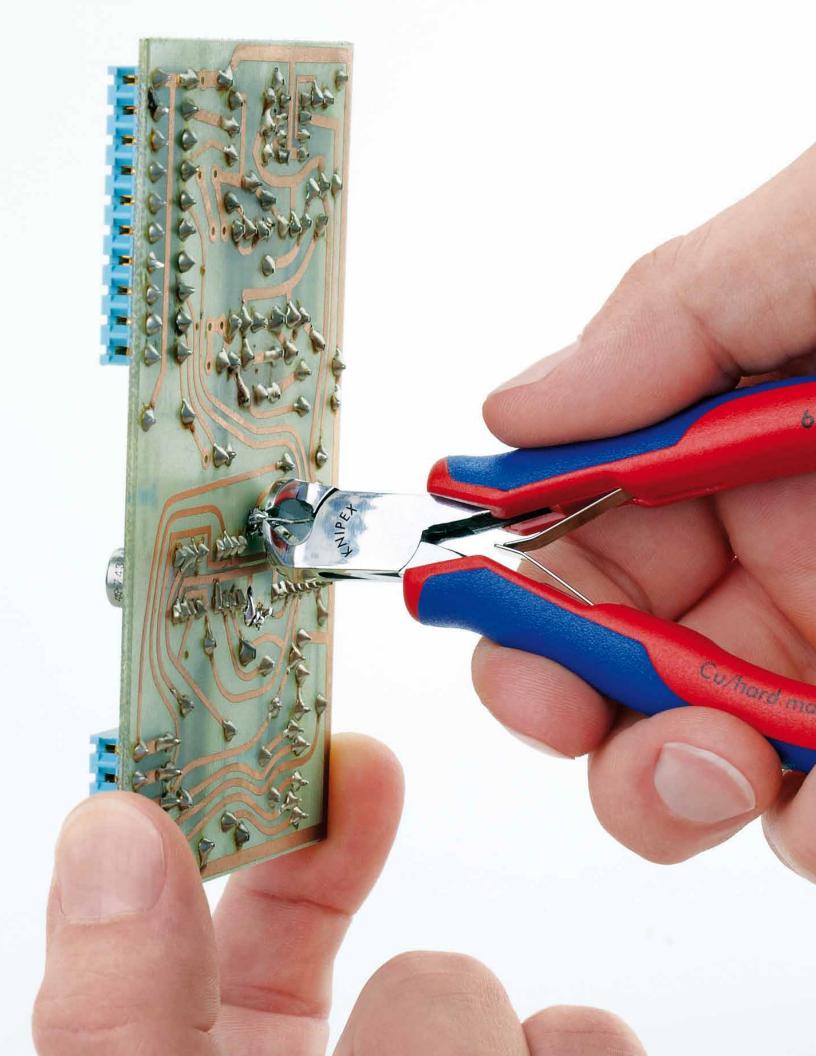
ISO 9654



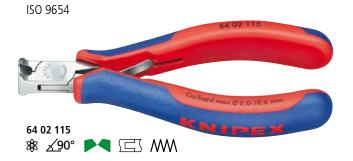
- with cutting edges for soft and medium hard wire
- without bevel; for flush cutting
- cutting edge hardness approx.58 HRC
- low-friction double spring for gentle and even opening
- precision box joint
- the polish together with a fine film of oil, offers effective rust protection — no circuit faults caused by peeling chrome from plated tools
- Vanadium electric steel; forged, oil-hardened



					Cutting ca	apacities		Dimer	sions		
Product Number	←→ inch		Head	Handles	Ø inch	Ø inch	A inch	B inch	C inch	D inch	∆∆ Ounces
62 12 120	4 3/4	\$ ₹ 15° □ M	polished	with multi-component grips	1/64 - 3/64	1/32	7/16	25/64	19/64	43/64	3.3
					Cutting ca	apacities		Dimer	nsions		
Product Number	Head Handles Handles		Ø mm	Ø mm	A mm	B mm	C mm	D mm	∆ Ounces		
62 12 120	120	 \$ £ 15° ▶ □ □ M	polished	with multi-component grips	0.3 - 1.0	0.7	11	10	7.5	17	3.3



Electronics End Cutting Nippers

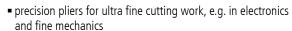












- precision box joint
- low-friction double spring for gentle and even opening
- the polish or mirror polish (only finish 2), together with a fine film of oil, offers effective rust protection — no circuit faults caused by peeling chrome from plated tools
- cutting edge hardness at least 56 HRC
- High-grade special tool steel; forged, oil-hardened

Style 0

End Cutter, with bevel

64 11 115

End Cutter, without bevel

64 12 115

End Cutter, with small bevel

Style 3

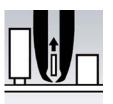
End Cutter, mini-blade with small bevel

Style 3

Oblique End Cutter, short head, with small bevel. $\alpha = 15^{\circ}$

Style 4

Oblique End Cutter, short head, with small bevel, $\alpha = 27^{\circ}$



64 22 115

Style !

Oblique End Cutter, short head, without bevel, for flush cutting, $\alpha = 27^{\circ}$

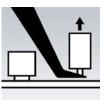
Style (

Oblique End Cutter, mini-blade with small bevel, $\alpha = 65^{\circ}$

Style 7

Oblique End Cutter, mini-blade with small bevel, head with recess, $\alpha=35^{\circ}$

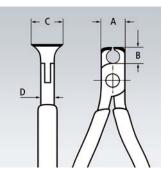
Pliers Sets see page 182



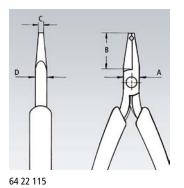
64 62 120

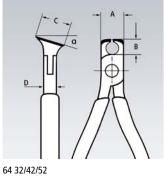


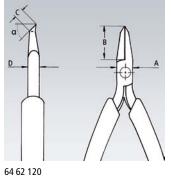
64 72 120

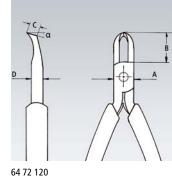


64 02/11/12









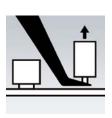
Product			Stylo	Head	Handles	_	ing capac		А	Dimei B	nsions I D		4
Number	←→ inch		Jtyle	riedu	Hallules	Ø inch	Ø inch	Ø inch	inch	inch	inch	inch	∆ ∆ Ounces
64 02 115	4 1/2	\$ ₹ 90° ▶4 □ M	0	mirror polished	with multi-component grips	5/64	3/64	1/64	7/16	15/64	19/64	5/8	3.3
64 11 115	4 1/2	\$ ₹ 90° 	1	polished	plastic coated	1/16	1/32		7/16	15/64	9/32	5/8	2.6
64 12 115	4 1/2	\$ ₹ 90° > □ □ M	1	mirror polished	with multi-component grips	5/64	1/32	1/64	7/16	15/64	9/32	5/8	3.2
64 22 115	4 1/2	¾ <u>√</u> 90°	2	mirror polished	with multi-component grips	1/32			25/64	51/64	15/64	1/8	2.3
64 32 120	4 3/4	\$ ₹ 15° > □ □ MM	3	mirror polished	with multi-component grips	1/16	3/64	1/64	7/16	25/64	9/32	43/64	3.2
64 42 115	4 1/2	\$ ∠27°	4	mirror polished	with multi-component grips	1/16	3/64	1/64	13/32	25/64	9/32	15/32	2.4
64 52 115	4 1/2	\$ ∠27° ► □ ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ►	5	mirror polished	with multi-component grips	3/64			13/32	25/64	9/32	15/32	2.4
64 62 120	4 3/4	\$ ∠ 65° / □ M	6	mirror polished	with multi-component grips	1/64			3/8	47/64	15/64	13/64	2.5
64 72 120	4 3/4	\$ ₹ 35° > □ □ MM	7	mirror polished	with multi-component grips	1/16			15/32	49/64	9/32	13/64	3.4

Product Number	←→ mm		Style	Head	Handles	Cutt Ø mm	ing capac D Ø mm	ities O Ø mm	A mm	Dimer B mm	nsions D mm	C mm	ے Ounces
64 02 115	115	\$ ₹ 90° ▶□ □ M	0	mirror polished	with multi-component grips	2.0	1.0	0.6	11.0	6.0	7.5	16.0	3.3
64 11 115	115	\$ <u>₹</u> 90°	1	polished	plastic coated	1.4	0.8		11.0	6.0	7.0	16.0	2.6
64 12 115	115	\$ ₹ 90° ▶ □ ™	1	mirror polished	with multi-component grips	2.0	0.8	0.5	11.0	6.0	7.0	16.0	3.2
64 22 115	115	\$ <u>₹</u> 90°	2	mirror polished	with multi-component grips	0.8			10.0	20.0	6.0	3.0	2.3
64 32 120	120	\$ ∡15°	3	mirror polished	with multi-component grips	1.5	1.0	0.5	11.0	10.0	7.0	17.0	3.2
64 42 115	115	% <u>⊀27°</u> ☐ MM	4	mirror polished	with multi-component grips	1.5	1.0	0.5	10.5	10.0	7.0	12.0	2.4
64 52 115	115	 \$ £ 27° ▶ □ ₩	5	mirror polished	with multi-component grips	1.3			10.5	10.0	7.0	12.0	2.4
64 62 120	120	\$ ∡65° <mark>/</mark> □ MM	6	mirror polished	with multi-component grips	0.6			9.5	18.5	6.0	5.0	2.5
64 72 120	120	 \$ £ 35° ▶ □ □ M	7	mirror polished	with multi-component grips	1.5			12.0	19.5	7.0	5.0	3.4

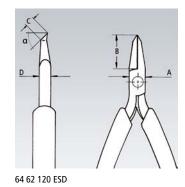
Electronics End-Cutting Nippers ESD

ISO 9654









ESD pliers (electrostatic discharge)

- electrostatic energy is discharged through the handles in a gradual and controlled manner
- protects components endangered by electrostatic discharge
- in accordance with applicable standards, e.g. IEC TR 61 340-5, DIN EN 61 340-5, SP Method 2472
- precision pliers for ultra fine cutting work, e.g. in electronics and fine mechanics
- electrically discharging handles energy dissipative
- precision box joint
- low-friction double spring for gentle and even opening
- the mirror polish together with a fine film of oil, offers effective rust protection – no circuit faults caused by peeling chrome from plated tools
- cutting edge hardness approx. 56 HRC
- with two-color dual component handles, black/grey
- High-grade special tool steel; forged, oil-hardened

Style 6 Oblique End Cutter, mini-blade with small bevel, $\alpha = 65^{\circ}$

Pliers Sets see page 182

						Cutting capacities		Dime	nsions		
Product	←→		Style	Head	Handles		Α	В	D	C	$\Delta \Delta$
Number	inch					Ø inch	inch	inch	inch	inch	Ounces
64 62 120 ESD	4 3/4	▲ ※ ∡ 65° ▶ □ ™	6	mirror polished	with multi-component grips	1/64	3/8	47/64	15/64	13/64	2.5

						Cutting capacities		Dime	ensions		
Product Number	←→ mm		Style	Head	Handles	Ø mm	A mm	B mm	D mm	C mm	ے کے Ounces
64 62 120 ESD	120	▲ \$ <u>∠65°</u> ► □ MM	6	mirror polished	with multi-component grips	0.6	9.5	18.5	6.0	5.0	2.5

67

High Leverage End Cutting Nippers

ISO 5748



- with cutting edges for soft, hard and piano wire
- high cutting capacity with little effort due to optimum coordination of cutting edge angle and transmission ratio
- cutting edge hardness approx. 64 HRC
- Chrome vanadium heavy-duty steel; forged, oil-hardened



									Cutting of	apacities				
Product	←→	←→	Pliers	Head	Handles									$\Delta \Delta$
Number	inch	mm				Ø inch	Ø inch	Ø inch	Ø inch	Ømm	Ømm	Ø mm	Ø mm	Ounces
67 01 140	5 1/2	140			plastic coated	5/32	1/8	5/64	1/16	4.0	3.1	2.0	1.5	5.4
67 01 160	6 1/4	160	black atramentized	polished		3/16	1/8	7/64	5/64	4.5	3.4	2.5	2.0	8.4
67 01 200	8	200				13/64	5/32	1/8	7/64	5.0	3.8	3.0	2.5	11.2



End Cutting Nippers

ISO 5748



- with cutting edges for soft and hard wire
- also suitable for twisting and cutting binding wire
- cutting edge hardness approx. 61 HRC
- High-grade special tool steel; forged, oil-hardened



Also suitable for wire netting in reinforced concrete construction

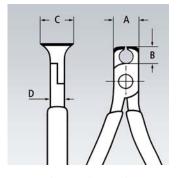
									Cutting c	apacities			
Product	←→	←→		Pliers	Head	Handles							₫
Number	inch	mm					Ø inch	Ø inch	Ø inch	Ø mm	Ø mm	Ø mm	Ounces
68 01 160	6 1/4	160					5/32	7/64	3/32	4.0	2.8	2.3	7.1
68 01 180	7 1/4	180		black atramentized	polished	plastic coated	5/32	1/8	3/32	4.0	3.2	2.5	10.0
68 01 200	8	200					5/32	9/64	7/64	4.0	3.5	2.8	11.3



End Cutting Nippers for mechanics



- with cutting edges for soft, hard and piano wire; also suitable for thin copper wires
- lap joint
- cutting edge hardness approx. 64 HRC
- Chrome vanadium heavy duty steel; forged, oil-hardened



						C	utting cap				Dimer	sions		
Product	←→		Pliers	Head	Handles					Α	В	D	С	77
Number	inch					Ø inch	Ø inch	Ø inch	Ø inch	inch	inch	inch	inch	Ounces
69 01 130	5 3/25	P	black atramentized	polished	plastic coated	1/64 - 5/64	3/64	3/64	1/32	5/8	19/64	25/64	51/64	3.9

							utting ca	pacities			Dimer	nsions		
Product	← ►		Pliers	Head	Handles					Α	В	D	С	$\Delta \Delta$
Number	mm					Ø mm	Ø mm	Ø mm	Ø mm	mm	mm	mm	mm	Ounces
69 01 130	130	P	black atramentized	polished	plastic coated	0.4 - 2.0	1.3	1.0	0.8	16.0	7.5	10.0	20.0	3.9

THE WORLD OF KNIPEX DIAGONAL CUTTERS







The Dual Action Cutter

Double-hinged design Hand force is multiplied by 39

KNIPEX X-Cut



Box joint: greatest stability with little weight Hand force is multiplied by 16

High Leverage Diagonal Cutter



Forged on hinged joint for robust use Hand force is multiplied by 13

Diagonal Cutter



Long cutting edges for cutting cable; also precise enough for the finest stranded wires

Hand force is multiplied by 9

Diagonal Cutters

ISO 5749



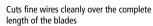




70 08 160 SBA **☆1000V △△△**

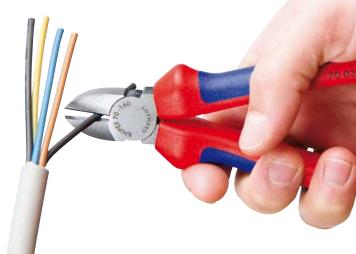
- the essential cutting tool for versatile use
- high quality material and precise workmanship for long service life
- precision cutting edges (cutting edge hardness approx. 62 HRC) for soft and hard wire
- clean cutting of thin copper wires, also at the cutting edge tips
- narrow head style for use in confined areas
 Vanadium electric steel; forged, oil-hardened







The slim head style and precise cutting capability are perfect for working in confined areas



									Cutting c	apacities	;		
Product Number	←→ inch	←→ mm		Pliers	Head	Handles	Ø inch	Ø inch	Ø inch	Ø mm	Ø mm	Ø mm	∆∆ Ounces
70 01 110	4 1/4	110					1/8	5/64	3/64	3.0	2.0	1.2	2.8
70 01 125	5	125			polished	plastic coated	1/8	3/32	1/16	3.0	2.3	1.5	2.8
70 01 140	5 1/2	140		black atramentized			5/32	3/32	5/64	4.0	2.5	1.8	4.4
70 01 160	6 1/4	160					5/32	7/64	5/64	4.0	2.8	2.0	6.0
70 01 180	7 1/4	180					5/32	1/8	3/32	4.0	3.0	2.5	7.1
70 02 125	5	125				ol le .	1/8	3/32	1/16	3.0	2.3	1.5	4.2
70 02 140	5 1/2	140	•	black	polished		5/32	3/32	5/64	4.0	2.5	1.8	5.3
70 02 160	6 1/4	160		atramentized	polistieu	with multi-component grips	5/32	7/64	5/64	4.0	2.8	2.0	7.3
70 02 180	7 1/4	180					5/32	1/8	3/32	4.0	3.0	2.5	8.9
70 08 160 SBA	6 1/4	160	<u>A</u> 1000 V	black	nolished	insulated with multi-component	5/32	7/64	5/64	4.0	2.8	2.0	6.0
70 08 180 SBA	7 1/4	180		atramentized po		grips, VDE-tested	5/32	1/8	3/32	4.0	3.0	2.5	7.1

KNIPEX CoBolt®

Compact Bolt Cutters

ISO 5743



An all around tool for the toughest demands! 60% reduction in required force compared to conventional high leverage diagonal cutters. The ingenious lever action mechanism ensures a favorable lever ratio with very little friction. The cutting force is about 20 times higher than the hand force applied.



- cuts components like bolts, nails, rivets, etc. up to 1/8" dia.
- exceptional cutting performance with minimal effort due to innovative effective lever action design
- cutting edge hardness approx. 64 HRC
- Chrome vanadium heavy-duty steel; forged, oil-hardened





71 02 200

with slim, two-color multi-component sleeves for better handling and easier transport; with large contact surface on the handles for better allotment of pressure and more comfortable work

71 12 200 / 71 22 200 / 71 32 200

opening spring and locking lever are integrated into the handles for more comfortable work and safer transport

Form 2

20° angled head with single-sided lock plate and diagonal cutting edge for flush cutting; with space for gripping

Form 3

the recess in the blade allows easier cutting of thicker wires, e.g. for anchor bolts in false ceilings

Form 4

the recess in the blade allows easier cutting of thicker wires, e.g. for anchor bolts in false ceilings, 20° angled head with single-sided lock plate and diagonal cutting edge for flush cutting; with space for gripping



opening spring and transport lock





71 41 200 <u>√</u>20°



The comparison 71 0x 200 with 71 2x 200 – the angled version provides a more flush cut

Conventional Bolt Cutter:

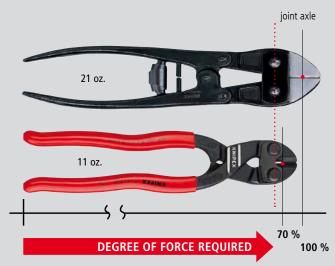
max. opening is approx. 1/8" in diameter weight = 21 ounces double joint

KNIPEX-Model e.g. 71 31 200 CoBolt®:

weight = 11 ounces good grip small size requires 30% less power than conventional bolt cutters

hard wire Ø 5/64"

picture not true to scale





71 31/32/41 200: The cutting edge recess near the joint keeps thicker wires in a better cutting position (optimum lever ratio). There is no need to reposition the tool to achieve the desired cut.



	oduct Number					(Cutting c	apacities							
Product Number	←→ inch	←→ mm		Style	Pliers	Handles	Ø inch	● Ø inch	Ø inch	Ø inch	Ø mm	⊕ Ø mm	Ø mm	Ø mm	∆ ∆ Ounces
71 01 200	8	200	1	0	black atramentized	plastic coated	1/4	13/64	5/32	9/64	6.0	5.2	4.0	3.6	11.8
71 01 200 R SBA	8	200	▶ 4	0	black atramentized	plastic coated	1/4	13/64	5/32	9/64	6.0	5.2	4.0	3.6	11.8
71 02 200	8	200	1	0	black atramentized	with multi- component grips	1/4	13/64	5/32	9/64	6.0	5.2	4.0	3.6	12.9
71 12 200	8	200	▶	1	black atramentized	with multi- component grips	1/4	13/64	5/32	9/64	6.0	5.2	4.0	3.6	13.2
71 21 200	8	200	<u>√</u> 20°	2	black atramentized	plastic coated	1/4	13/64	5/32	9/64	6.0	5.2	4.0	3.6	11.3
71 22 200	8	200	<u>√</u> 20° MM	2	black atramentized	with multi- component grips	1/4	13/64	5/32	9/64	6.0	5.2	4.0	3.6	13.2
71 31 200	8	200	▶ 4	3	black atramentized	plastic coated	1/4	13/64	5/32	9/64	6.0	5.2	4.0	3.6	11.6
71 31 200 R SBA	8	200	1	3	black atramentized	plastic coated	1/4	13/64	5/32	9/64	6.0	5.2	4.0	3.6	11.6
71 32 200	8	200	▶	3	black atramentized	with multi- component grips	1/4	13/64	5/32	9/64	6.0	5.2	4.0	3.6	13.1
71 41 200	8	200	<u>√</u> 20°	4	black atramentized	plastic coated	1/4	13/64	5/32	9/64	6.0	5.2	4.0	3.6	11.8

Bolt Cutters

for hard materials up to 48 HRC









- cutting capacity up to 48 HRC hardness
- robust cutting edges with a hardness of approx. 62 HRC
- forged-on stopper with comfortable shock absorber
- good access due to very flat construction of head and joint area
- ergonomically angled handles to minimize effort
- sturdy, two-color dual component handles won't slip
- precise adjustment (12 positions) by cam bolt
- high cutting performance with minimum effort due to optimum coordination of the cutting edge angle, transmission ratio and ergonomic handle shape
- bolted cutter head, replaceable
- blade: Chrome vanadium heavy-duty steel; forged, oil-hardened
- joint: Special tool steel; forged
- handle: steel tube, powder-coated







Forged-on stopper with absorbing inserts: cushions the cutting stroke



Product Number	←→ inch	←→ mm		Head	Handles	HRC 19 Ø inch	HRC 40 Ø inch	Cutting c HRC 48 Ø inch		HRC 40 Ø mm	HRC 48 Ø mm	ے Ounces
71 72 460	18 1/4	460	P4 53	grey atramentized	with multi-component grips	5/16	1/4	13/64	8.0	6.0	5.0	74.1
71 72 610	24	610	P453	grey atramentized	with multi-component grips	23/64	5/16	9/32	9.0	8.0	7.0	90.0
71 72 760	30	760	P453	grey atramentized	with multi-component grips	7/16	23/64	5/16	11.0	9.0	8.0	150.0
71 72 910	35 3/4	910	1	grey atramentized	with multi-component grips	1/2	25/64	23/64	13.0	10.0	9.0	175.0



Concrete Mesh Cutter



71 82 950

- cutting capacity up to 48 HRC hardness
- robust cutting edges with a hardness of approx. 62 HRC
- forged-on stopper with comfortable shock absorber
- good access due to very flat construction of head and joint area
- ergonomically angled handles to minimize effort
- sturdy, two-color dual component handles won't slip
- precise adjustment (12 positions) by cam bolt
- high cutting performance with minimum effort due to optimum coordination of the cutting edge angle, transmission ratio and ergonomic handle shape
- bolted cutter head; replaceable
- blade: Chrome vanadium heavy-duty steel; forged, oil-hardened
- joint: Special tool steel; forged
- handle: steel tube, powder-coated



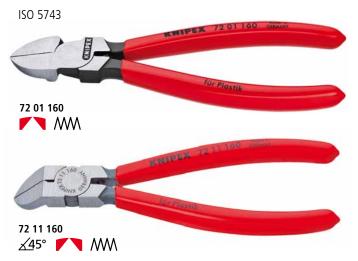




The special shape of the mesh cutter head enables it to cut structural steel that is lying down flat

Product	←→	←→	Head	Handles	HRC 19	HRC 40	HRC 48	HRC 19	HRC 40	HRC 48	$\Delta \Delta$
Number	inch	mm			Ø inch	Ø inch	Ø inch	Ø mm	Ømm	Ø mm	Ounces
71 82 950	37 1/2	950	grey atramentized	with multi-component grips	7/16	23/64	1/4	11.0	9.0	6.0	130.0

Diagonal Cutters for plastics



- provides a fully flush cut when cutting tie-wraps, plastic and soft metals
- with opening spring
- Vanadium electric steel; forged, oil-hardened







72 21 1	60	
<u>√</u> 85°		WW

Product Number	←→ inch	←→ mm		Head	Handles	۵۵ Ounces
72 01 140	5 1/2	140				4.4
72 01 160	6 1/4	160	M	polished	plastic coated	5.8
72 01 180	7 1/4	180				6.8
72 11 160	6 1/4	160	<u>∡4</u> 5°	polished	plastic coated	5.5
72 21 160	6 1/4	160	<u>∡</u> 85°	polished	plastic coated	5.8

Diagonal Cutter for fiber optics

(glass fiber cable)

DIN ISO 5743



Product Number	←→ inch	←→ mm		Head	Handles	۵۵ Ounces
72 51 160	6 1/4	160	MW	polished	plastic coated	5.9

- specially developed for flush cutting of fiber optics (glass fiber cables)
- cutting edges additionally induction hardened
- with opening spring
- Vanadium electric steel; forged, oil-hardened

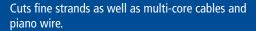


The KEVLAR® fibers in strain relief are cut with the 95 03 160 shears. KEVLAR® is a registered trademark of E. I. du Pont de Nemours and Company

KNIPEX X-Cut

Compact and light. Powerful and precise.





- box-joint design: highest stability at low weight
- double supported joint axis for heavy duty cutting
- high cutting capacity with very little effort due to the optimum coordination of the cutting edge angle and lever ratio with off center pivot point
- 40% less effort required compared to diagonal cutters of the same length
- large opening width for thicker cables
- cuts all wires precisely, even fine copper wires
- compact, low-weight construction
- universally usable in assembly, maintenance and production
- Chrome vanadium heavy duty steel; forged, oil-hardened









Product Number	←→ inch		Pliers	Head	Handles	Ø inch	Ø inch	Ø inch	O Ø inch	Ø inch	∆ Ounces
73 02 160	6 1/4	•	black atramentized	polished	with multi-component grips	3/16	5/32	7/64	3/32	15/32	6.2
73 05 160	6 1/4		chrome plated		with multi-component grips	3/16	5/32	7/64	3/32	15/32	6.2
73 06 160	6 1/4	≙ 1000 V △♣	chrome plated		insulated with multi-component grips, VDE-tested	3/16	5/32	7/64	3/32	15/32	6.9

Product Number	←→ mm		Pliers	Head	Handles	Ø mm	● Ø mm	Ø mm	O Ø mm	Ø mm	۵۵ Ounces
73 02 160	160		black atramentized	polished	with multi-component grips	4.8	3.8	2.7	2.2	12.0	6.2
73 05 160	160	P4	chrome plated		with multi-component grips	4.8	3.8	2.7	2.2	12.0	6.2
73 06 160	160	≙ 1000 V △€	chrome plated		insulated with multi-component grips, VDE-tested	4.8	3.8	2.7	2.2	12.0	6.9

High Leverage Diagonal Cutters

ISO 5749



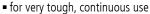




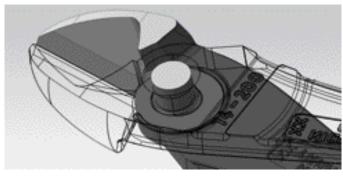


74 21 200 <u>12°</u>

20% reduction in required force compared to conventional diagonal cutters of the same length. With forged-on joint axle.



- high cutting performance with minimum effort due to optimum coordination of the cutting edge angle, transmission ratio and ergonomic handle shape
- precision cutting edges (cutting edge hardness approx. 64 HRC)
 cut several types of wire including piano wire
- Chrome vanadium heavy duty steel; forged, oil-hardened



With forged-on axle for heaviest duty

Style 1 with opening spring; to be activated if required



74 12: Opening spring in deactivated position



74 12: Just pressing with your thumb will activate the opening spring

12° angled head offers ample space for gripping



20% reduction in required hand force

leverage comparison between the Diagonal Cutter <=> High Leverage Diagonal Cutter

High power transmission

Power cutter:

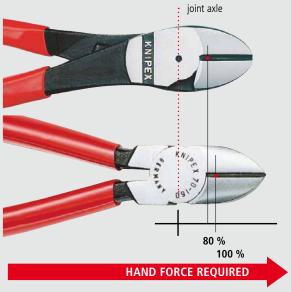
hand force of 290 N required to cut hard wire (Ø 5/64")

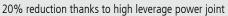
Normal power transmission

Cutter:

hand force of 370 N required to cut hard wire (Ø 5/64")

• hard wire (Ø 5/64")









										Cutting c	apacities			
Product Number	←→ inch	←→ mm		Style	Pliers	Head	Handles	● Ø inch	Ø inch	Ø inch	● Ø mm	Ø mm	Ø mm	∆ ∆ Ounces
74 01 140	5 1/2	140						1/8	5/64	1/16	3.1	2.0	1.5	4.6
74 01 160	6 1/4	160				polished		1/8	3/32	5/64	3.4	2.5	2.0	6.3
74 01 180	7 1/4	180		0	black atramentized		plastic coated	5/32	7/64	3/32	3.8	2.7	2.2	8.5
74 01 200	8	200						11/64	1/8	3/32	4.2	3.0	2.5	9.3
74 01 250	10	250						3/16	9/64	1/8	4.6	3.5	3.0	13.8
74 02 140	5 1/2	140						1/8	5/64	1/16	3.1	2.0	1.5	5.5
74 02 160	6 1/4	160						1/8	3/32	5/64	3.4	2.5	2.0	7.4
74 02 180	7 1/4	180		0	black atramentized	polished	with multi-component grips	5/32	7/64	3/32	3.8	2.7	2.2	9.6
74 02 200	8	200						11/64	1/8	3/32	4.2	3.0	2.5	10.7
74 02 250	10	250						3/16	9/64	1/8	4.6	3.5	3.0	15.4
74 08 200	8	200	№ 1000 V	0	black		insulated with multi-	11/64	1/8	3/32	4.2	3.0	2.5	10.7
74 08 250	10	250	∆1000 ¥	U	atramentized	polished	component grips, VDE-tested	3/16	9/64	1/8	4.6	3.5	3.0	15.4
74 12 160	6 1/4	160		1	black	12.1 1	24 10 0	1/8	3/32	5/64	3.4	2.5	2.0	7.4
74 12 180	7 1/4	180	M	1	atramentized	polished	with multi-component grips	5/32	7/64	3/32	3.8	2.7	2.2	9.6
74 21 160	6 1/4	160						1/8	3/32	5/64	3.4	2.5	2.0	6.4
74 21 180	7 1/4	180	<u>√12°</u>	2	black	nolishod	plactic control	5/32	7/64	3/32	3.8	2.7	2.2	8.3
74 21 200	8	200	X12	2	atramentized	polished	plastic coated	11/64	1/8	3/32	4.2	3.0	2.5	9.1
74 21 250	10	250						3/16	9/64	1/8	4.6	3.5	3.0	13.8
74 22 200	8	200	<u>√12°</u>	2	black	polichod	with multi component aring	11/64	1/8	3/32	4.2	3.0	2.5	10.6
74 22 250	10	250	X12	2	atramentized	zed polished	with multi-component grips	3/16	9/64	1/8	4.6	3.5	3.0	15.4



KNIPEX TwinForce

High Leverage Diagonal Cutter



Meet the TwinForce

The ideal tool for cutting thicker wires. New to the Diagonal Cutter family is the option to reapply the tool. This is due to the innovative double-hinged design. Each cutting repetition reduces the effort required to achieve the ultimate cut. Reapplying with the KNIPEX TwinForce allows the user to cut materials that cannot be cut with comparable diagonal cutters of the same length.

- ideal transmission of force due to double-hinged design
- extremely easy cutting with little strain
- cuts again 50% easier than the tried and tested high leverage diagonal cutters
- reliably cuts all types of wire, including steel tape
- NEW for diagonal cutters: The option to reapply the tool. The KNIPEX TwinForce cuts even 5/32" thick wire without great effort when reapplied two or three times. Conventional high leverage diagonal cutters either cannot cut these diameters or only with very great effort.
- for rough or very fine cutting
- low cutting impact: gentle on hands. The tension on muscles and tendons is relieved
- cuts wire up to \emptyset 5/32" without considerable effort when reapplied several times
- high degree of stability and zero-backlash due to precisely milled forged-in axle
- Chrome vanadium heavy duty steel



Product Number	←→ inch		Pliers	Head	Handles	Ø inch	Cutting c Ø inch	apacities Ø inch	0	∆ ∆ Ounces
73 71 180	7 1/4		black atramentized	polished	plastic coated	7/32	3/16	1/8	1/8	9.0
73 72 180	7 1/4		black atramentized	polished	with multi- component grips	7/32	3/16	1/8	1/8	9.0
Product	←→		Pliers	Head	Handles		Cutting c	apacities		7.7
Number	mm					Ø mm	Ø mm	Ø mm	Ø mm	Ounces
73 71 180	mm 180	P 4	black atramentized	polished	plastic coated	Ø mm 5.5	_	\sim		



High Leverage Center Cutters

ISO 5743



- with forged-on axle for heavy duty cutting
- with precision cutting edges for soft, hard and piano wire
- cuts thick wires with less effort than other diagonal cutters of the same length
- cutting edges are in the center of the cutter head
- high cutting performance with minimal effort due to optimum coordination of the cutting edge angle, transmission ratio and ergonomic handle shape
- cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC
- Chrome vanadium heavy-duty steel; forged, oil-hardened



The cutting edges are in the center
The cutting edges are in the center
of the cuttor bood

						1	Cutting c	apacities	;	
Product Number	←→ inch		Pliers	Head	Handles	Ø inch	Ø inch	Ø inch	Ø inch	∆∆ Ounces
74 91 250	10	1	black atramentized	polished	plastic coated	13/64	13/64	5/32	9/64	14.0
							Cutting o	apacities	5	
Product Number	←→ mm		Pliers	Head	Handles	Ø mm	Ø mm	Ø mm	Ø mm	∆∆ Ounces
7/ 91 250	250	b4	hlack atramentized	nolished	nlastic coated	5.0	5.0	3 8	3.5	1/1 0

Electronics Diagonal Cutters



- bolted joint for high precision and stress tolerance
 for very precise assembly work, e.g. in electronics and fine mechanics
 with sharp, ground cutting for soft and hard wire and piano wire
- cutting edge hardness approx. 64 HRC
- low-friction double spring for gentle and even opening
- High-grade special tool steel; forged, oil-hardened

Style 0

with bevel

Style 1

with bevel and wire clamp, no uncontrolled loss of cut wire ends

Style 2

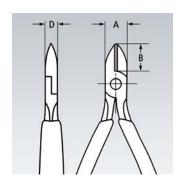
with small bevel

Style 5

particularly narrow head, with bevel



Bolted joint



						Cu	tting cap	acities		D	imensio	ns	
Product Number	←→ inch		Style	Pliers	Handles	Ø inch	Ø inch	Ø inch	Ø inch	A inch	B inch	D inch	∆ ∆ Ounces
75 02 125	5	* ~ £ 3 M M	0	burnished	plastic coated	1/64 - 3/64	3/64	1/64	1/64	13/32	35/64	17/64	2.9
75 12 125	5	* P13 M >	1	burnished	plastic coated	1/64 - 3/64	3/64	1/64	1/64	13/32	35/64	17/64	2.8
75 22 125	5	* M	2	burnished	plastic coated	1/64 - 3/64	2/64	1/64	1/64	13/32	35/64	17/64	2.8
75 52 125	5	* - - - - - - - - - -	5	burnished	plastic coated	1/64 - 3/64	1/64	1/64		13/32	35/64	17/64	2.8

						Cu	itting cap	acities		D	imensio	ns	
Product Number	←→ mm		Style	Pliers	Handles	Ø mm	Ø mm	Ø mm	Ø mm	A mm	B mm	D mm	ے Ounces
75 02 125	125	* ▶ ■ E3 MM	0	burnished	plastic coated	0.2 - 1.3	1.0	0.6	0.4	10.5	14	6.5	2.9
75 12 125	125	* P3 M >	1	burnished	plastic coated	0.2 - 1.3	1.0	0.6	0.4	10.5	14	6.5	2.8
75 22 125	125	* > E3 M M	2	burnished	plastic coated	0.2 - 1.3	0.9	0.4	0.3	10.5	14	6.5	2.8
75 52 125	125	* - - - - - - - - - -	5	burnished	plastic coated	0.2 - 0.8	0.5	0.3		10.5	14	6.5	2.8



Diagonal Cutters for electromechanics

ISO 5749



- with sharp, precisely aligned cutting edges for soft, hard and piano wire
- cutting edge hardness approx. 63 HRC
- lap joint
- Vanadium electric steel; forged, oil-hardened

Style 1

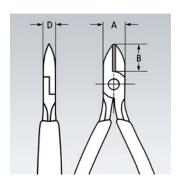
low-friction double spring for gentle and even opening

Style 2

without bevel for flush cutting of soft wires; low-friction double spring for gentle and even opening

Style 8

tapered head with small bevel for work in confined areas (cable harnesses, multiple stranded wires)



						Cı	utting cap	acities		D	imension	S	
Product Number	←→ inch		Pliers	Head	Handles	Ø inch	Ø inch	Ø inch	Ø inch	A inch	B inch	D inch	Ounces
76 01 125	5	₩ ▶◀	black atramentized	polished	plastic coated	1/64 - 1/8	3/32	1/16	1/64	37/64	5/8	23/64	3.2
76 22 125	5	88 ► ► W	black atramentized	polished	with multi- component grips	1/64 - 7/64				37/64	5/8	23/64	3.8
76 81 125	5	×8 /~	black atramentized	polished	plastic coated	1/64 - 5/64	3/64	1/32		37/64	5/8	23/64	3.1

						C	utting cap	acities		D	imension	S	
Product Number	←→ mm		Pliers	Head	Handles	Ø mm	Ø mm	Ø mm	Ø mm	A mm	B mm	D mm	Ounces
76 01 12	.5 125	₩ ▶◀	black atramentized	polished	plastic coated	0.4 - 3.0	2.3	1.5	0.6	14.5	16.0	9.0	3.2
76 22 12	.5 125	₩ / / / / / / / / / /	black atramentized	polished	with multi- component grips	0.4 - 2.5				14.5	16.0	9.0	3.8
76 81 12	.5 125	XX	black atramentized	polished	plastic coated	0.4 - 1.7	1.3	0.8		14.5	16.0	9.0	3.1

Electronics Diagonal Cutters



- for fine cutting work, e.g. in electronics and fine mechanics
- sturdy, zero-backlash box joint
- low-friction double spring for gentle and even opening
- the polish or mirror polish (only finish 2) together with a fine film of oil, offers effective rust protection — no circuit faults caused by peeling chrome from plated tools
- cutting edge hardness approx. 62 HRC
- High-grade special tool steel; forged, oil-hardened



77 01 115

round head, with bevel

77 02 115

round head, with small bevel

77 11 115

round head, with bevel and lead catcher – no uncontrolled loss of cut wire ends

77 21 115

pointed head, without bevel

77 22 115

round head, without bevel; cutting edge hardness approx. 57 HRC

77 32 115

pointed head, with small bevel

77 42 115

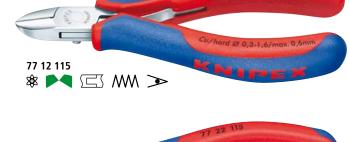
pointed head, without bevel; cutting edge hardness approx. 57 HRC

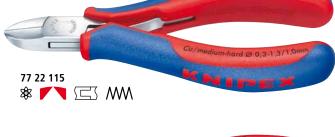
77 52 115

pointed, flat head, with small bevel; cutting edge hardness approx. 57 HRC

77 72 115

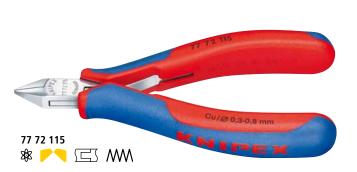
miniature head with small bevel













					Cuttir	ng capaciti	es	[Dimension	S	
Product Number	←→ inch		Head	Handles	Ø inch	Ø inch	Ø inch	B inch	A inch	D inch	∆ ∆ Ounces
77 01 115	4 1/2		nalishad	plactic control	1/64 - 1/16	3/64	1/64	35/64	7/16	19/64	2.4
77 01 130	5 1/4	* ▶ ■□ MM	polished	plastic coated	1/64 - 5/64	1/16	1/32	23/32	19/32	3/8	3.8
77 02 115	4 1/2	* ✓ □ MM	mirror polished	with multi-component grips	1/64 - 1/16	3/64	1/64	35/64	7/16	19/64	2.8
77 12 115	4 1/2	* ▶ ¶⊠ 	mirror polished	with multi-component grips	1/64 - 1/16	3/64	1/64	35/64	7/16	19/64	2.8
77 22 115	4 1/2	* ✓□ (((((((((((((mirror polished	with multi-component grips	1/64 - 3/64	3/64		35/64	7/16	9/32	2.8
77 22 130	5 1/4	* ✓ □ MM	mirror polished	with multi-component grips	1/64 - 5/64	1/16		23/32	19/32	23/64	4.4
77 42 115	4 1/2			of the second	1/64 - 3/64	1/32		35/64	7/16	19/64	2.8
77 42 130	5 1/4	* ✓ □ MM	mirror polished	with multi-component grips	1/64 - 1/16	3/64		23/32	19/32	3/8	4.3
77 52 115	4 1/2	* ✓ □ MM	mirror polished	with multi-component grips	1/64 - 3/64	1/32	1/64	35/64	7/16	19/64	2.7
77 72 115	4 1/2	* ✓ □ MM	mirror polished	with multi-component grips	1/64 - 1/32			13/32	3/8	15/64	2.4

						ng capaciti	es	[Dimensions	5	
Product Number	↔ mm		Head	Handles	Ø mm	Ø mm	Ø mm	B mm	A mm	D mm	∆ ∆ Ounces
77 01 115	115				0.3 - 1.6	1.2	0.6	14.0	11.0	7.5	2.4
77 01 130	130	* ▶ □ □ MM	polished	plastic coated	0.3 - 2.0	1.5	0.8	18.0	15.0	9.5	3.8
77 02 115	115	* ✓□ C	mirror polished	with multi-component grips	0.3 - 1.6	1.2	0.6	14.0	11.0	7.5	2.8
77 12 115	115	* ▶ □ I	mirror polished	with multi-component grips	0.3 - 1.6	1.2	0.6	14.0	11.0	7.5	2.8
77 22 115	115	* ✓\⊑\\	mirror polished	with multi-component grips	0.3 - 1.3	1.0		14.0	11.0	7.0	2.8
77 22 130	130	* ▶ ™ □ M M	mirror polished	with multi-component grips	0.3 - 2.0	1.5		18.0	15.0	9.0	4.4
77 42 115	115				0.3 - 1.3	0.8		14.0	11.0	7.5	2.8
77 42 130	130	* ✓☐MM	mirror polished	with multi-component grips	0.3 - 1.6	1.3		18.0	15.0	9.5	4.3
77 52 115	115	* ✓\⊑\\	mirror polished	with multi-component grips	0.3 - 1.0	0.8	0.5	14.0	11.0	7.5	2.7
77 72 115	115	* ✓ □ MM	mirror polished	with multi-component grips	0.3 - 0.8			10.5	9.5	6.0	2.4

Pliers Sets see page 182

Electronics Diagonal Cutters ESD







ESD pliers (electrostatic discharge)

- electrostatic energy is discharged through the handles in a gradual and controlled manner
- protects components endangered by electrostatic discharge
- in accordance with applicable standards, e.g. IEC TR 61 340-5, DIN EN 61 340-5, SP Method 2472
- for very precise assembly work, e.g. in electronics and fine mechanics
- electrically discharging handles dissipative
- sturdy, zero-backlash box joint
- low-friction double spring for gentle and even opening
- the mirror polish together with a fine film of oil, offers effective rust protection – no circuit faults caused by peeling chrome from plated tools
- cutting edge hardness approx. 62 HRC
- with two-color dual component handles, black/grey
- High-grade special tool steel; forged, oil-hardened

77 02 115 ESD

round head, with small bevel

77 22 115 ESD

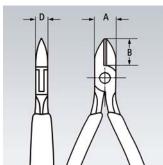
round head, without bevel

77 42 115 ESD

pointed head, without bevel

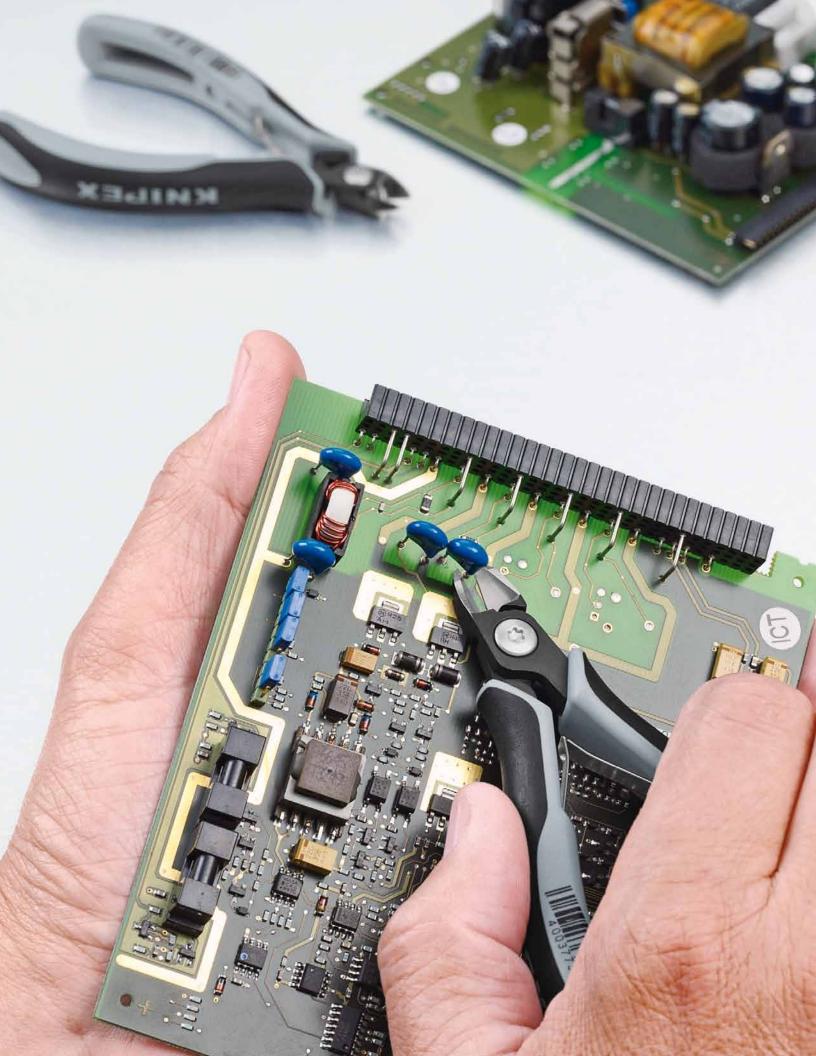






					Cutting	g capaciti	es	D	imension	IS	
Product Number	←→ inch		Head	Handles	Ø inch	Ø inch	Ø inch	B inch	A inch	D inch	∆ ∆ Ounces
77 02 115 ESD	4 1/2	▲ ≉ / □□MM	mirror polished	with multi-component grips	1/64 - 1/16	3/64	1/64	35/64	7/16	19/64	2.9
77 22 115 ESD	4 1/2	® ♥▼□M	mirror polished	with multi-component grips	1/64 - 3/64	3/64		35/64	7/16	19/64	2.8
77 42 115 ESD	4 1/2	▲ * / □ ⊆ MM	mirror polished	with multi-component grips	1/64 - 3/64	1/32		35/64	7/16	19/64	2.8

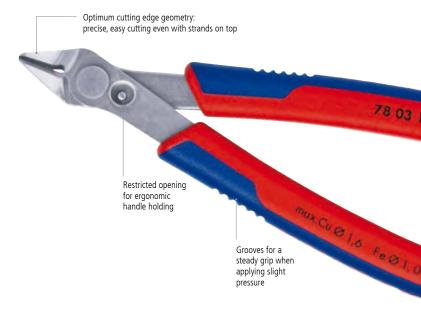
Product Number	←→ mm		Head	Handles	Cuttin D Ø mm	g capaciti D Ø mm	es Ø mm	B mm	imension A mm	s D mm	∆ ∆ Ounces
77 02 115 ESD	115	▲ * > □ M	mirror polished	with multi-component grips	0.3 - 1.6	1.2	0.6	14.0	11.0	7.5	2.9
77 22 115 ESD	115	▲ * / □ ⊆ MM	mirror polished	with multi-component grips	0.3 - 1.3	1.0		14.0	11.0	7.5	2.8
77 42 115 ESD	115	△*/ □ MM	mirror polished	with multi-component grips	0.3 - 1.3	0.8		14.0	11.0	7.0	2.8



Electronic Super Knips®



- precision pliers for ultra fine cutting work, e.g. in electronics and fine mechanics
- ground, very sharp cutting edges without bevel for flush cutting
- precision shaped tips cut through close wires from 1/64" dia.
- stainless steel rivet
- cutting edges additionally induction hardened
- extremely smooth movement for minimum operator fatigue
- with opening spring
- INOX or Special tool steel



78 03 125 / 78 23 125

INOX-stainless steel; cutting edge hardness approx. 54 HRC

78 31 125

Cutting edges additionally induction hardened, cutting edge hardness approx. 60 HRC; with narrow head; Special tool steel, burnished

78 41 125

Cutting edges additionally induction hardened, cutting edge hardness approx. 60 HRC; with narrow head; with lead catcher — no uncontrolled loss of cut wire ends; Special tool steel, burnished

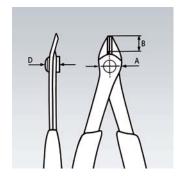
78 61 125

Cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC; also suitable for cutting glass fiber cables (fiber optics)



78 71 125

Special tool steel, burnished; with lead catcher – no uncontrolled loss of cut wire ends; cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC





							ng capaciti	_	[Dimensions	5	
Product Number	←→ inch		Pliers	Head	Handles	Ø inch	Ø inch	Ø inch	B inch	A inch	D inch	∆ ∆ Ounces
78 03 125	5	₩ / \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		polished	with multi-component grips	1/64 - 1/16	3/64		23/64	17/32	19/64	2.0
78 23 125	5	\$ <u>√6</u> 0°		polished	with multi-component grips	1/64 - 3/64	1/64		7/32	17/32	19/64	1.9
78 31 125	5	№ / \	burnished		with multi-component grips	1/64 - 3/64			23/64	1/2	19/64	1.9
78 41 125	5	* ► M >	burnished		with multi-component grips	1/64 - 3/64			23/64	1/2	19/64	2.0
78 61 125	5	№ / / / / / /	burnished		with multi-component grips	1/64 - 1/16	3/64	1/64	23/64	17/32	19/64	2.0
78 71 125	5	* ► MM>	burnished		with multi-component grips	1/64 - 1/16	3/64	1/64	23/64	17/32	19/64	2.0

							ng capaciti	es	I	Dimensions	;	
Product	←→		Pliers	Head	Handles			lacksquare	В	А	D	47
Number	mm					Ø mm	Ø mm	Ø mm	mm	mm	mm	Ounces
78 03 125	125	₩ / \		polished	with multi-component grips	0.2 - 1.6	1.0		9.0	13.5	7.5	2.0
78 23 125	125	\$ ₹60° M		polished	with multi-component grips	0.2 - 1.0	0.6		5.5	13.5	7.5	1.9
78 31 125	125	₩ / \ \ \ \ \ \ \	burnished		with multi-component grips	0.2 - 1.0			9.0	12.5	7.5	1.9
78 41 125	125	* ✓ MM >	burnished		with multi-component grips	0.2 - 1.0			9.0	12.5	7.5	2.0
78 61 125	125	₩ / \ \ \ \ \ \ \	burnished		with multi-component grips	0.2 - 1.6	1.2	0.6	9.0	13.5	7.5	2.0
78 71 125	125	* ► M >	burnished		with multi-component grips	0.2 - 1.6	1.2	0.6	9.0	13.5	7.5	2.0

78

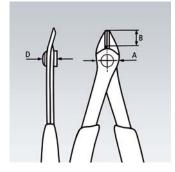
Electronic Super Knips® ESD





ESD pliers (electrostatic discharge)

- electrostatic energy is discharged through the handles in a gradual and controlled manner
- protects components endangered by electrostatic discharge
- in accordance with applicable standards, e.g. IEC TR 61 340-5, DIN EN 61 340-5, SP Method 2472
- precision pliers for ultra fine cutting work, e.g. in electronics and fine mechanics
- electrically discharging handles dissipative
- ground, very sharp cutting edges without bevel for flush cutting
- precision shaped tips cut through close wires from 1/64" dia.
- stainless steel rivet
- extremely smooth movement for minimal operator fatigue
- with opening spring



78 03 125 ESDSurgeon steel; cutting edge hardness

approx. 54 HRC

	roduct lumber	←→ inch		Head	Handles	Cutting ca Ø inch	pacities Ø inch	B inch	imensior A inch	ns D inch	∆∆ Ounces
78	8 03 125 ESD	5	▲* ► MM	polished	with multi-component grips	1/64 - 1/16	3/64	23/64	17/32	19/64	1.9

					Cutting ca		D	imensior	ıs	
Product Number	←→ mm		Head	Handles	Ø mm	Ø mm	B mm	A mm	D mm	۵۵ Ounces
78 03 125 ESD	125	▲* ✓ M	polished	with multi-component grips	0.2 - 1.6	1.0	9.0	13.5	7.5	1.9

Precision Electronics Diagonal Cutters



Small Change. Big Difference.

KNIPEX Precision Electronics Pliers are made of high-quality ball bearing steel and processed with the highest degree of care. Each opening movement is gentle and without backlash. Each work step proceeds reliably and precisely.

- precision pliers for ultra fine cutting work, e.g. in electronics and fine mechanics
- very precisely ground and sharp cutting edges wih small bevels for precise cutting work on small electronic components
- a version without the bevel is available for flush cutting
- cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC
- approx. 20% lighter than conventional electronics pliers
- bolted joint with carefully manufactured joint surfaces for even, low-friction movement throughout the entire opening range
- smooth-running double spring for a gentle and even opening
- ergonomically optimized handle covers
- Chrome vanadium ball-bearing steel; forged

79 02 120 / 79 22 120 mini-head

79 02 125 / 79 22 125

round head

79 12 125

for cutting through hard wire and piano wire

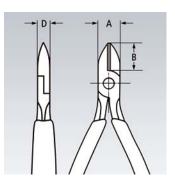
79 32 125 / 79 42 125 pointed head

👕 Cutting edges without bevel

Cutting edges with very small bevel







	nch Ø inch	inch	inch	D inch	Ounces
79 02 120 4 3/4 * * * * * * * * * * * * * * * * * * *	64	17/64	23/64	17/64	2.0
79 02 125 5 ** Dished with multi-component grips 1/64 - 5/64 3/64 1/	32	25/64	7/16	17/64	2.1
79 12 125 5 % NM burnished polished with multi-component grips 1/64 - 5/64 3/64 3/	64 1/64	25/64	7/16	17/64	2.1
79 22 120 4 3/4 % TS MM burnished polished with multi-component grips 1/64 - 3/64 1/32		17/64	23/64	17/64	2.0
79 22 125 5		25/64	7/16	17/64	2.1
79 32 125 5 ** PI AVM burnished polished with multi-component grips 1/64 - 1/16 3/64 1/	64	7/16	7/16	17/64	2.0
79 42 125 5 STAW burnished polished with multi-component grips 1/64 - 1/16 1/32		7/16	7/16	17/64	2.0
Cutting capacit	Cutting capacities		Dimensio	ns	
Product ←→ Pliers Head Handles • • • • • • • • • • • • • • • • • • •		B mm	A mm	D mm	∆ ∆ Ounces
79 02 120 120 % 120 M burnished polished with multi-component grips 0.2 - 1.4 1.0 0	.6	6.5	9.0	6.5	2.0
79 02 125 125 \$ 7 1.3 burnished polished with multi-component grips 0.2 - 1.7 1.3 0	.7	10.0	11.0	6.5	2.1
79 12 125	.0 0.6	10.0	11.0	6.5	2.1
79 22 120 120 № ▶ ■ ↑ № № № № № № № № № № № № № № № № № №		6.5	9.0	6.5	2.0
79 22 125 125 № ▶ ■ ↑ № № № № № № № № № № № № № № № № № №		10.0	11.0	6.5	2.1
	.6	11.0	11.0	6.5	2.0

2.0

11.0 11.0 6.5

Precision Electronics Diagonal Cutters ESD



ESD pliers (electrostatic discharge)

- electrostatic energy is discharged through the handles in a gradual and controlled manner
- protects components endangered by electrostatic discharge
- in accordance with applicable standards, e.g. IEC TR 61 340-5, DIN EN 61 340-5, SP Method 2472
- precision pliers for ultra fine cutting work, e.g. in electronics and fine mechanics
- very precisely ground and sharp cutting edges wih small bevels for precise cutting work on small electronic components
- a version without the bevel is available for flush cutting
- electrically discharging handles dissipative
- cutting edge hardness approx. 64 HRC
- approx. 20% lighter than conventional electronics pliers
- bolted joint with particularly carefully manufactured joint surfaces for even, low-friction movement throughout the entire opening range
- smooth-running double spring for a gentle and even opening
- ergonomically optimized handle covers
- Chrome vanadium ball-bearing steel; forged

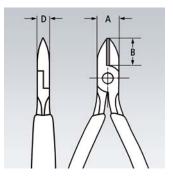
79 02 120 ESD / 79 22 120 ESD mini-head

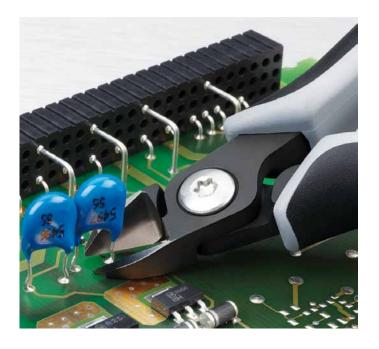
79 02 125 ESD / 79 22 125 ESD round head

79 12 125 ESD

for cutting through hard wire and piano wire

79 32 125 ESD / 79 42 125 ESD pointed head





						Cu	tting cap			D	imensior	IS	
Product Number	←→ inch		Pliers	Head	Handles	Ø inch	Ø inch	Ø inch	Ø inch	B inch	A inch	D inch	ΔΔ Ounces
79 02 120 ESD	4 3/4	▲ ※ ► N N N N N N N N N N	burnished	polished	with multi-component grips	1/64 - 1/16	3/64	1/64		17/64	23/64	17/64	2.1
79 02 125 ESD	5	▲ ※ ► ■ ■ ■ ■ ■ ■	burnished	polished	with multi-component grips	1/64 - 5/64	3/64	1/32		25/64	7/16	17/64	2.2
79 12 125 ESD	5	▲ ※ ► →	burnished	polished	with multi-component grips	1/64 - 5/64	3/64	3/64	1/64	25/64	7/16	17/64	2.2
79 22 120 ESD	4 3/4	▲ ※ / → → → → → → → → → →	burnished	polished	with multi-component grips	1/64 - 3/64	1/32			17/64	23/64	17/64	2.2
79 22 125 ESD	5	▲ ※ / →	burnished	polished	with multi-component grips	1/64 - 5/64	3/64			25/64	7/16	17/64	2.2
79 32 125 ESD	5	▲ * / 	burnished	polished	with multi-component grips	1/64 - 1/16	3/64	1/64		13/32	7/16	17/64	2.2
79 42 125 ESD	5	▲ ※ / ↑	burnished	polished	with multi-component grips	1/64 - 1/16	1/32			13/32	7/16	17/64	2.0

							ıtting cap			D	imension	IS	
Product Number	←→ mm		Pliers	Head	Handles	Ø mm	Ø mm	Ø mm	Ø mm	B mm	A mm	D mm	Ounces
79 02 120 ESD	120	▲ ※ / 	burnished	polished	with multi-component grips	0.2 - 1.4	1.0	0.6		6.5	9.0	6.5	2.1
79 02 125 ESD	125	▲	burnished	polished	with multi-component grips	0.2 -1.7	1.3	0.7		10.0	11.0	6.5	2.2
79 12 125 ESD	125	▲ ※ ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ►	burnished	polished	with multi-component grips	0.3 - 1.7	1.3	1.0	0.6	10.0	11.0	6.5	2.2
79 22 120 ESD	120	▲ * / \ 3	burnished	polished	with multi-component grips	0.1 - 1.3	0.8			6.5	9.0	6.5	2.2
79 22 125 ESD	125	▲ * / \	burnished	polished	with multi-component grips	0.1 - 1.7	1.0			10.0	11.0	6.5	2.2
79 32 125 ESD	125	▲ * ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ► ►	burnished	polished	with multi-component grips	0.2 - 1.5	1.1	0.6		10.5	11.0	6.5	2.2
79 42 125 ESD	125	▲ ※ / ↑	burnished	polished	with multi-component grips	0.1 - 1.5	0.8			10.5	11.0	6.5	2.0



81

Pipe Gripping Pliers

for plastic pipes and connectors



- ideal for tightening and releasing plastic pipe joints, round union nuts, etc. from 1"- 2 9/16" dia.
- serrated or smooth jaws
- 4-position adjustable slip joint
- Chrome vanadium electric steel; forged, oil-hardened





81 13 230

with plastic jaws for careful installation up to 2 23/64" dia.

Product Number	←→ inch	4→ mm	Pliers	Handles	Working Ø inch	capacity Ø mm	ے Ounces
81 03 230	9 1/4	230	chrome plated	plastic coated	1 - 2 9/16	25 - 65	10.4
81 13 230	9 1/4	230	chrome plated	plastic coated	1 - 2 23/64	25 - 60	10.2

81 19 230 2 pairs of plastic jaws for 81 13 230



Cycle Pliers

81 13 230



- for very narrow screw connections
- Special tool steel; forged, oil-hardened

84 11 200 straight head

84 21 200 20° angled head

Product Number	←→ inch	←→ mm		Pliers	Head	Handles	Rece Ø inch	ess Ø mm	Head th inch	nickness mm	ے ا Ounces
84 11 200	8	200		black atramentized	polished	plastic coated	1/4 / 3/8	6 / 10	1/8	3.5	6.2
84 21 200	8	200	√ 20° □	black atramentized	polished	plastic coated	1/4 / 3/8	6 / 10	1/8	3.5	6.4



Pipe Wrenches 90°

DIN 5234



83 10 015 <u>√</u>90° Ⅲ

- Swedish pattern
- 90° angled jaws
- jaws with offset teeth in opposite directions
- teeth additionally induction hardened
- I-beam handle design
- captive adjusting nut
- red powder-coated, jaws bright ground

 Chrome vanadium electric steel; forged, oil-hardened





Product Number	←→ inch	←→ mm		Pliers	O]; Ø inch	(C); inch		Clampin inch	g width mm	∆∆ Ounces
83 10 010	12 1/2	310		red powder-coated	1 5/8	1	42	1 5/8	42	27.5
83 10 015	17 1/2	420			2 3/8	1 1/2	60	2 3/8	60	50.0
83 10 020	22 1/2	560	√ 90° ■■		2 3/4	2	70	2 3/4	70	91.7
83 10 030	25 1/2	650			4 3/8	3	110	4 3/8	110	121.1
83 10 040	29 1/2	750			5 1/8	4	130	5 1/8	130	173.6



Pipe Wrenches 45°

DIN 5234



83 20 015 <u>/</u>45°

- Swedish pattern
- 45° angled jaws
- jaws with offset teeth in opposite directions
- teeth additionally induction hardened
- I-beam handle design
- captive adjusting nut
- ■red powder-coated, jaws bright ground

Chrome vanadium electric steel; forged, oil-hardened





Product Number	←→ inch	←→ mm		Pliers	○] Ø inch	(C); inch	○] Ø mm	Clampir inch	ng width mm	∆¹∆ Ounces
83 20 010	13	320			1 5/8	1	42	1 5/8	42	28.9
83 20 015	17	430	∡ 45° □	red powder-coated	2 3/8	1 1/2	60	2 3/8	60	49.7
83 20 020	22 1/2	570			2 3/4	2	70	2 3/4	70	91.6



Pipe Wrenches S-Type

DIN 5234



83 30 015

- slim, S-type jaw
- jaws with offset teeth in opposite directions
- teeth additionally induction hardened
- three-point gripping on pipes; self-locking
- I-beam handle design
- captive adjusting nut
- red powder-coated, jaws bright ground

• Chrome vanadium electric steel; forged, oil-hardened





Product Number	←→ inch	4 →► mm		Pliers	○] Ø inch	(C); inch	○] Ø mm	Clampin inch	g width mm	∆∆ Ounces
83 30 005	9 1 /4	245		red powder-coated	1 1/2	1/2	35	1 1/2	35	16.6
83 30 010	13	320			1 5/8	1	42	1 5/8	42	29.5
83 30 015	17	420			2 3/8	1 1/2	60	2 3/8	60	54.3
83 30 020	21 1/4	540			2 3/4	2	70	2 3/4	70	94.1
83 30 030	26 1/4	680			4 3/4	3	120	3 60/64	100	154.0



Pipe Wrench S-Type

with fast adjustment



83 60 010



83 60 015

• time-saving, precise adjustment of the opening width at the press of a
button directly on the workpiece

- less effort required due to self-locking mechanism
- no unintentional shifting of the pliers
- high wear-resistance due to the additionally hardened teeth

Product Number	←→ inch	←→ mm	Pliers	O∃ Ø inch	(C); inch		Clampir inch	ng width mm	ے Ounces
83 60 010	13	330	red powder-coated	1 5/8	1/2	42	1 5/8	42	33.7
83 60 015	17	420	red powder-coated	2 3/8	1 1/2	60	2 3/8	60	51.9

Pliers Wrenches

pliers and wrench in a single tool

ISO 5743



86 03 150





86 03 180



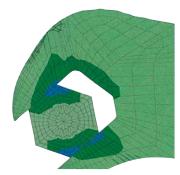
86 05 250





86 03 300

Conventional open end wrench: edge pressure causes surface damage on edges of nuts and bolts



Pliers Wrench: zero-backlash contact pressure, no damage

Meet the Pliers Wrench:

A One-Of-A-Kind Tool with Unlimited Possibilities...

From gripping and holding to pressing and bending applications, there is little that the Pliers Wrench can't do. With smooth jaws that won't damage or mar the surface of workpieces to a push-button adjustment that maintains the tool's setting, the Pliers Wrench is everything that you need to get the job done.

- replaces a full set of inch and metric open end wrenches
- adjustable tightening tool
- excellent for gripping, holding, pressing and bending applications
- smooth jaws for careful installation of plated fittings
- will not round off nuts and bolts and won't damage chrome and other soft finishes
- parallel jaws allow infinitely variable gripping of all widths to the specified maximum size
- reliable catching of the hinge bolt: no unintentional shifting
- the action of the jaws allows bolted connections to be tightened and released quickly using the ratchet principle
- lever transmission greater than 10 1 for strong gripping power
- Chrome vanadium electric steel; forged, oil-hardened

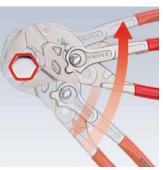
Length 6"

Mini Pliers Wrench for precision mechanics; ideal multi-purpose wrench in pocket size; perfect for inclusion in emergency tool kits; great for heavy duty use in tight locations

with narrow gripping jaws - for fastening/loosening situations requiring a slim tool



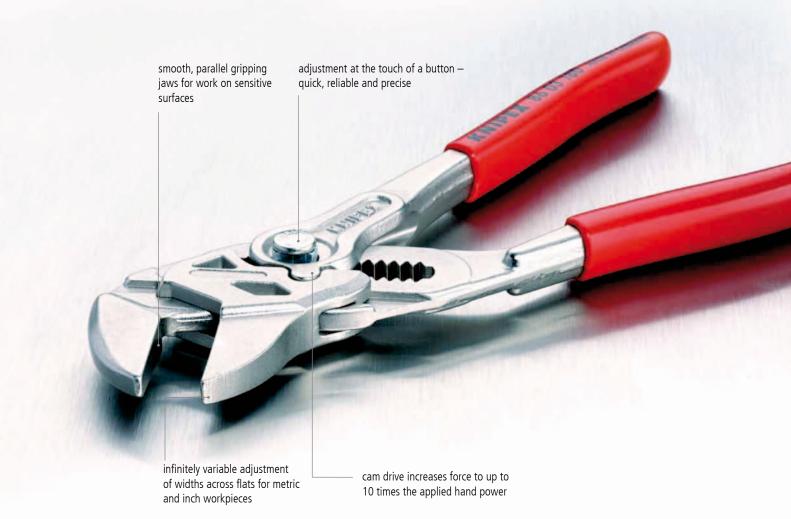
Working on plated fittings without damaging

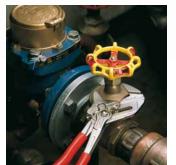


Works using the ratchet principle



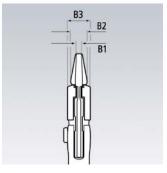
Fast adjustment by pushing a button











											Dimens	ions			
Product Number	←→ inch	←→ mm		Pliers	Handles	inch	mm	Adjustment positions	B1 inch	B2 inch	B3 inch	B1 mm	B2 mm	B3 mm	Ounces
86 03 150	6	150	_			1	27	14	3/16	9/32	13/32	4.7	7.0	10.5	6.2
86 03 180	7 1/4	180		nickel	wlastic contad	1 3/8	35	13	13/64	5/16	15/32	5.0	8.0	12.0	9.0
86 03 250	10	250		plated	plastic coated	1 3/4	46	17	5/16	5/16	35/64	8.0	8.0	14.0	19.0
86 03 300	12	300				2 3/8	60	22	3/8	3/8	19/32	9.5	9.5	15.0	25.7
86 05 150	6	150				1	27	14	3/16	9/32	13/32	4.7	7.0	10.5	6.8
86 05 180	7 1/4	180		nickel plated	with multi-component grips	1 3/8	35	13	13/64	5/16	15/32	5.0	8.0	12.0	9.8
86 05 250	10	250		Ċ		1 3/4	46	17	5/16	5/16	35/64	8.0	8.0	14.0	20.1
86 07 250 SBA	10	250	<u></u> 1000 V	chrome plated	with dipped insulation grips, VDE-tested	1 3/4	46	17	5/16	5/16	35/64	8.0	8.0	14.0	21.7

KNIPEX Cobra® Hightech Water Pump Pliers

ISO 8976









87 01 250









Meet the Cobra® - The Indispensable Gripping Machine.

No more time-consuming test-adjusting to achieve the correct size. Now, simply position the upper jaw to the workpiece, press the button and close the lower jaw.

Say "goodbye" to those awful blood blisters you get with other gripping pliers. We've designed a built-in pinch guard that prevents blood blisters on your hand. Your safety is our first priority.

Innovative. Efficient. Safe. That's the KNIPEX Difference.

- adjustment at the touch of a button directly on the workpiece
- fine adjustment for optimum adaptation to different size work pieces and a comfortable gripping position
- self-locking on pipes and nuts: no slipping on the workpiece and low hand force required
- gripping surfaces with special hardened teeth, teeth hardness approx. 61 HRC; low wear and reliable gripping
- box-joint design: high stability because of double guide
- reliable catching of the hinge bolt: no unintentional shifting
- pinch guard prevents operators' fingers from being pinched
- Chrome vanadium electric steel; forged, oil-hardened

Length 5"

for use in precision mechanics, hobbies and in the home; improved access in very confined spaces, perfect for an emergency tool kit

Length 7 1/4"

good access to the workpiece

Length 10"

very large gripping capacity; good access to the workpiece; high load capacity having a slim design



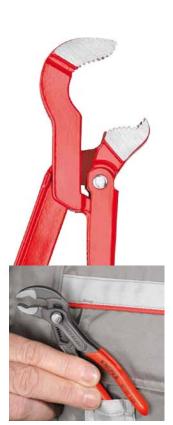
Teeth set against the direction of rotation have a self-clamping effect and prevent slipping on the workpiece



Fine adjustment by pushing a button: fast and comfortable



Fast and firm adjustment directly on the workpiece



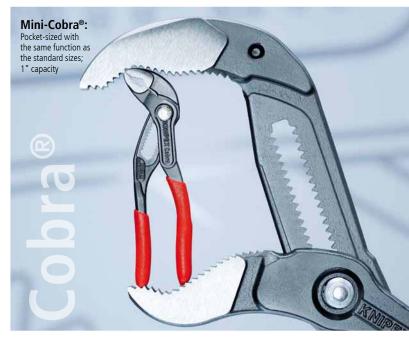












Product Number	←→ inch	←→ mm		Pliers	Head	Handles	O∃ Ø inch	inch	O] Ø mm	⊜] mm	Adjustment positions	∆ ∆ Ounces
87 01 125	5	125		grey atramentized	polished		1	1	27	27	13	3.0
87 01 150	6	150				with non-slip plastic coating	1 1/4	1 12/64	32	30	11	5.1
87 01 180	7 1/4	180					1 1/2	1 27/64	42	36	18	6.0
87 01 250	10	250					2	1 13/16	50	46	25	11.1
87 01 300	12	300					2 3/4	2 23/64	70	60	30	19.0
87 02 180	7 1/4	180				with multi-component grips	1 1/2	1 27/64	42	36	18	6.9
87 02 250	10	250		grey atramentized	polished		2	1 13/16	50	46	25	13.2
87 02 300	12	300					2 3/4	2 23/64	70	60	30	20.4
87 03 125	5	125				with	1	1	25	27	13	3.0
87 03 180	7 1/4	180		chromo platad			1 1/2	1 27/64	42	36	18	6.2
87 03 250	10	250		chrome plated		non-slip plastic coating	2	1 13/16	50	46	25	11.1
87 03 300	12	300					2 3/4	2 23/64	70	60	30	19.0
87 05 180	7 1/4	180				5.1	1 1/2	1 27/64	42	36	18	6.9
87 05 250	10	250		chrome plated		with multi-component grips	2	1 13/16	50	46	25	13.2
87 05 300	12	300					2 3/4	2 23/64	70	60	30	20.4

KNIPEX Cobra® XL/XXL

Pipe and Water Pump Pliers

ISO 5743



The KNIPEX Cobra® XL and XXL offer the power and comfort of water pump pliers while being lighter in weight and having a greater gripping capacity than comparable pipe wrenches.

The **Cobra® XL** can grip a 3 1/2" pipe coupling and weighs 50% less than 2 "pipe wrenches, which have a much lower gripping capacity. With its compact length of 16", the Cobra XL is perfect for the plumber's tool box.

The **Cobra® XXL** with its capacity of up to 4 1/2" only weighs as much as 2"pipe wrenches. It's 22" size makes it the biggest pliers around!



87 01 560

- greater gripping capacity but much lower weight than comparable pipe wrenches
- fast push-button adjustment directly on the workpiece; no unintentional slipping of the joint
- fine adjustment for optimum adaptation to different size workpieces and a comfortable handle width
- self-locking on pipes and nuts: no slipping on the workpiece and low handforce required
- gripping surfaces with special hardened teeth;
 teeth hardness approx. 61 HRC: low wear and reliable gripping
- box-joint design: high stability because of double guide
- pinch guard prevents operators' fingers from being pinched
- Chrome vanadium electric steel; forged, oil-hardened



Grips any shape object: round, square, hex or flat



Fine adjustment by pushing a button: fast and comfortable

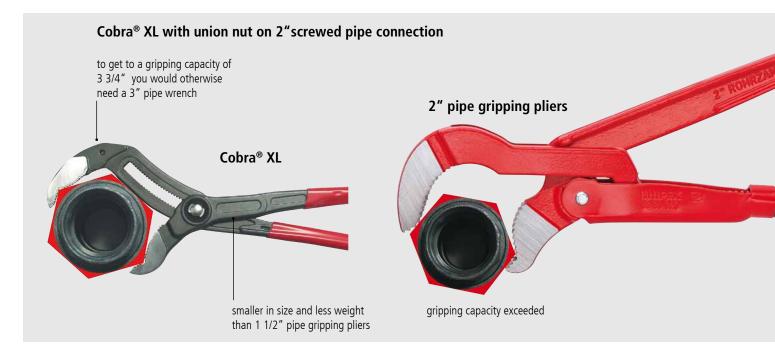
Product Number	←→ inch	←→ mm	Pliers	Head	Handles	O] Ø inch	◯ <u></u> inch	O] ømm	⊜] mm	Adjustment positions	ے Ounces
87 01 400	16	400	grey atramentized	polished	plastic coated	3 1/2	3 3/4	90	95	27	42.8
87 01 560	22	560	grey atramentized	polished	plastic coated	4 1/2	4 3/4	115	120	20	97.0





Self-locking on pipes and nuts: no slipping on the workpiece and less handforce required $% \left(1\right) =\left(1\right) \left(1\right)$

Fast and firm adjustment directly on the workpiece





KNIPEX Auto Adjusting Pliers PATENTED

ISO 8976





Automatic adjustment: no time-consuming trial and error adjusting to the correct opening size in case of differently sized workpieces



Slim dimensions for good access to the workpiece using one handed operation



Locking lever for space saving transport with reliable closed handles



Self-locking on pipes and nuts means no slipping off the work piece

Cobra...Redefined.

Adjustment to the workpiece is automatic with the KNIPEX Auto Adjusting Pliers!
Just grip the pliers handles and squeeze - it's that easy!

- ideal for frequent changeovers to workpieces of different sizes
- automatic adjustment per one handed operation both for right-handed and left-handed use
- good access to the workpiece thanks to the slim dimensions in the head and joint area and the flush joint bolt
- self-locking on pipes and nuts: no slipping on the workpiece and low handforce required
- gripping surfaces with special hardened teeth, teeth hardness approx. 61 HRC: low wear and reliable gripping
- box-joint design: high stability because of double guide
- pinch guard prevents operators' fingers from being pinched
- locking lever for space saving transport with reliable closed handles
- Chrome vanadium electric steel; forged, oil-hardened



Product Number	←→ inch	←→ mm	Pliers	Head	Handles	O] Ø inch	◯ <u></u> inch	O] Ø mm	⊜ <u></u> mm	∆ Ounces
85 01 250 US	10	250	grey atramentized	polished	with non-slip plastic coating	1 1/4	1 3/8	32	36	13.1



KNIPEX Cobra® QuickSet

Water Pump Pliers

ISO 8976



- adjustment by shifting the jaw directly on to the workpiece: fast, secure and comfortable handling
- opening at the touch of a button
- fine adjustment for optimum adaptation to different workpiece sizes and a comfortable handle width
- good access to the workpiece due to slim size in the head and joint area
- self-locking on pipes and nuts: no slipping on the workpiece and low handforce required
- gripping surfaces with special hardened teeth,
 teeth hardness approx. 61 HRC: low wear and reliable gripping
- box-joint design: high stability because of double guide
- pinch guard prevents operators' fingers from being pinched
- Chrome vanadium electric steel; forged, oil-hardened

Product Number	←→ inch	←→ mm		Pliers	Head	Handles	O] Ø inch	O] ø mm	◯ <u>]</u> inch	⊜] mm	Adjustment positions	ے Ounces
87 21 250	10	250	■ GM	grey atramentized	polished	with non-slip plastic coating	2	50	1 3/4	46	25	11.8



KNIPEX Cobra® VDE

Hightech Water Pump Pliers, insulated

ISO 8976 IEC 60900 DIN EN 60900



87 28 250 SBA

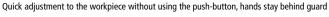
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It's easy to achieve the perfect capacity on the KNIPEX Cobra® VDE Pliers. You don't even have to push the button! Simply place the upper gripping jaw of the opened pliers on the workpiece and slide the lower handle forward.

- adjustment by shifting the jaw directly on to the workpiece: fast and reliable
- opening at the touch of a button off the workpiece
- fine adjustment for optimum adaptation to different workpiece sizes and a comfortable gripping position
- good access to the workpiece due to slim size in the head and joint area
- self-locking on pipes and nuts: no slipping on the workpiece and low handforce required
- gripping surfaces with special hardened teeth, teeth hardness approx. 61 HRC: low wear and reliable gripping
- box-joint design: high stability because of double guide
- pinch guard prevents operators' fingers from being pinched
- Chrome vanadium electric steel; forged, oil-hardened







Just push the pliers handle to adjust

Product Number	←→ inch	←→ mm		Pliers	Head	Handles	○] Ø inch	O] Ø mm	◯ <u></u> inch	⊜⊒ mm	Adjustment positions	∆ ∆ Ounces
87 28 250	10	250	≙ 1000 V △€	grey atramentized	polished	insulated with multi-component grips, VDE-tested	2	50	1 3/4	46	24	12.0

KNIPEX RAPTORTM Pliers (PATEN

ISO 5743



The KNIPEX Raptor™ Pliers combines the convenience of the comfortable push-button adjustment on the workpiece and the function of an all-purpose tightening tool. Jaw gripping with zero backlash prevents slipping on the bolt head or rounding edges. Even rusty or thick-coated bolted connections, which usually cannot be gripped by a conventional spanner, can be managed by the exceptionally powerful gripping jaws of this tool.

- for inch and metric nuts and screws with widths across flats from 3/8" up to 1 1/4"; self-locking in the range from 11/16" on; no slipping on the workpiece
- zero-backlash gripping of inch or metric hexagonal head screws; no rounding of screw heads
- reliable and tight gripping of rounded, rusty or overly painted nuts and screws; ideal for work on vehicle brake systems
- quick tightening of nuts and bolts using ratchet action
- adjustment at the touch of a button directly on the workpiece, one handed operation
- fine adjustment for optimum adaptation to different size workpieces and a comfortable handle width
- box-joint design: high stability because of double guide
- secure catching of the hinge bolt: no unintentional shifting
- favorable lever action: optimum transmission of force
- guard prevents operators' fingers from being pinched
- replaces a set of wrenches; ideal for tightening locknuts
- Chrome vanadium electric steel; forged, oil-hardened





Grips rusted nuts with rounded edges



Self-locking: no slipping on the workpiece and less effort required



Fine adjustment by pushing a button: fast and comfortable



KNIPEX Raptor[™] Pliers as the second spanner for tightening locknuts

Product Number	←→ inch	←→ mm	Pliers	Head	Handles	◯ <u></u> inch	⊜_; mm	Adjustment positions	ے Ounces
87 41 250 RAP	10	250	grey atramentized	polished	with non-slip plastic coating	3/8 - 1 1/4	10 - 32	15	11.6



KNIPEX Cobra® ES

Water Pump Pliers extra-slim

ISO 8976



87 51 250



Grips nuts up to 1 3/8" across flats



Slim head and joint area (compared to conventional water pump pliers)



Fine adjustment by pushing a button: fast and comfortable



Optimum access to the workpiece. Ideal for service and maintenance, equipment repair, automotive and general industry

The KNIPEX Cobra ES is ideal for working in confined areas. Featuring a slim head and long, narrow jaws, this tool reaches into places other pliers can't.

- ideal for service and maintenance, equipment repair, automotive and general industry
- long, narrow jaws
- good access to the workpiece due to very slim construction of head and joint area
- grips flat material due to the three-point rest
- adjustment at the touch of a button directly on the workpiece
- fine adjustment for optimum adaptation to different size workpieces and a comfortable handle width
- self-locking on pipes and nuts: no slipping on the workpiece and low handforce required
- box-joint design: high stability because of double guide
- secure catching of the hinge bolt: no unintentional shifting
- favorable lever action: optimum transmission of force
- guard prevents operators' fingers from being pinched
- Chrome vanadium electric steel; forged, oil-hardened



Product Number	←→ inch	Pliers	Head	Handles	O∄ Ø inch	◯ _; inch	max. parallel opening width (in inch)	max. gripping depth (in inch)	Adjustment positions	∆ ∆ Ounces
87 51 250	10	grey atramentized	polished	with non-slip plastic coating	1 1/4	1 3/8	1 1/2	1 5/8	19	11.6

Product Number	←→ mm	Pliers	Head	Handles	O] Ø mm	⊜ mm	max. parallel opening width (in mm)	max. gripping depth (in mm)	Adjustment positions	∆¹∆ Ounces
87 51 250	250	grey atramentized	polished	with non-slip plastic coating	32	34	37	42	19	11.6

KNIPEX Alligator® Water Pump Pliers

ISO 8976











Meet the Alligator®

More output and comfort compared to conventional water pump pliers of the same length: offer 9 adjustment positions for 30% more gripping capacity; good access to the workpiece due to slim size in the head and joint areas

- self-locking on pipes and nuts: no slipping on the workpiece and low handforce required
- gripping surface with special hardened teeth, teeth hardness approx. 61 HRC; low wear and reliable gripping
- box-joint design: high stability because of double guide
- robust construction; particularly suitable for heavy duty work
- pinch guard prevents operators' fingers from being pinched
- Chrome vanadium electric steel; forged, oil-hardened



Self-locking on pipes and nuts; no slipping on the workpiece. Less handforce is required since handles do not need to be squeezed. Simply put pressure on the upper handle for a powerful grip.

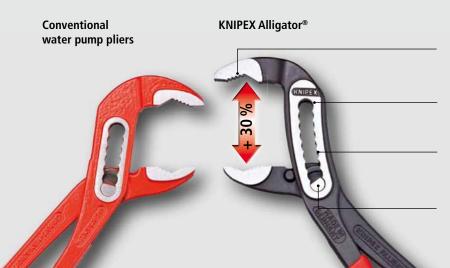












specially hardened teeth

high resistance to wear, allowing continuous and reliable gripping

robust adjusting mechanism

insensitive to dirt; particularly suitable for outdoor work

9 adjustment position

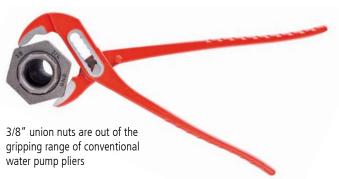
30% more gripping capacity, optimized adjustment to the workpiece and a comfortable gripping position; slim size

box joint, double guide no loosening of the joint connection; heavy duty





The Alligator® 250 mm grips the union nut in a 3/4" screw connection with comfortable handle positioning



Alligator® 300 instead of a 1 1/2" pipe wrench





Product Number	←→ inch	4→ mm		Pliers	Head	Handles	O⊒ Ø inch	◯ _ inch	○] Ø mm	⊜⊒ mm	Adjustment positions	∆ ∆ Ounces
88 01 180	7 1/4	180					1 1/2	1 3/8	42.0	36.0	9	6.3
88 01 250	10	250		black atramentized	polished with non-slip plastic coating	with non-slip plastic	2	1 3/4	50.0	46.0	9	11.3
88 01 300	12	300		attamentized		J	2 3/4	2 3/8	70.0	60.0	9	18.0
88 02 180	7 1/4	180				with multi- component grips	1 1/2	1 3/8	42.0	36.0	9	7.6
88 02 250	10	250		black atramentized	polished		2	1 3/4	50.0	46.0	9	12.6
88 02 300	12	300		attamentizea			2 3/4	2 3/8	70.0	60.0	9	20.0
88 07 250	10	250		black atramentized	chrome plated	plastic dipped insulated	2	1 3/4	50.0	46.0	9	11.3
88 08 250 SBA	10	250	≙ 1000 V △€	black atramentized	polished	insulated with multi- component grips, VDE-tested	2	1 3/4	50.0	46.0	9	13.7

Mini Water Pump Pliers with groove joint

ISO 8976



90 01 125

- easy, convenient engagement in 4 different positions
 tongue and groove slip joint
- all strain removed from the joint screw; no wear on pivot
- pinch guard prevents operators' fingers from being pinched
- Chrome vanadium electric steel; forged, oil-hardened

Product Number	←→ inch	←→ mm	Pliers	Head	Handles	O⊒ Ø inch	inch	○] Ø mm		∆ ∆ Ounces
90 01 125	5	125	black atramentized	polished	plastic coated	5/8	1/2	17	14	3.6



Pipe Cutter

for plastic conduit pipes and flexible hoses



90 20 185 ∕₩\

Turning the cutter slightly when operating prevents brittle pipes from splitting or breaking.

- for cutting thin-walled plastic pipes (conduit plastic pipes) and flexible hoses, also with fabric reinforcement, of plastic and rubber up to 1" exterior dia.
- not suitable for cutting cables
- with opening spring and locking lever
- tool body: plastic, fiberglass reinforced
- blade: Special tool steel; oilhardened, interchangeable



With replaceable blade





Product Number	←→ inch	←→ mm		Cutting c Ø inch	apacities Ø mm	∆ ∆ Ounces
90 20 185	7 1/4	185	MM	1	25	6.1

90 29 185 Spare blade for 90 20 185

90

Pipe Cutter

for composite pipes and corrugated conduit

(PATENTED)



90 25 20 ////

- for cutting composite pipes with diameters of 1/2" 1" and for cutting flexible corrugated conduit pipes with a diameter of 3/4" 1 3/8" without damaging the pipe inside
- a calibration arbor can be fitted, for example for Geberit composite pipes with 29/64" and 38/64" dia.
- tool body: High-grade chrome vanadium electric steel; oil-hardened
- blades: Special tool steel; oil-hardened, interchangeable



Composite pipes of 1/2 - 1"dia. are cut cleanly and without deformation



Clean cut of corrugated conduit 3/4" - 1 3/8" dia.

								Cutting c	apacities			Ounces	
Product			Handles	composite					Blade	47			
Number	inch	mm				pipes Ø inch	pipes Ø inch	length inch	pipes Ø mm	pipes Ø mm	length mm	Ounces	
90 25 20	8 1/4	210	ΛW	galvanized	with multi-component grips	1/2 - 1	3/4 - 1 3/8	1	12 - 25	18 - 35	25	11.7	

90 29 01	Spare blade for 90 25 20 (composite pipes)
90 29 02	1 pair of spare blades for 90 25 20 (protective pipes)
90 29 15	Calibration arbor for 90 25 20 (Geberit pipes)



Pipe Cutter for composite and plastic pipes

(PATENTED)



90 25 40 WW

- for cutting thick-walled plastic and composite pipes with diameters from 1 - 1 37/64"
- cuts pipes using the ratchet principle in several strokes
- self-adapting pipe support positions pipes of various diameters correctly for a rectangular cut
- tool body: High-grade chrome vanadium electric steel, oil-hardened
- blade: Special tool steel; oil-hardened, interchangeable





Clean cut of thick-walled plastic and composite pipes

Not suitable for thin-walled conduit pipes. Please use article number 90 20 185 for

Product Number	←→ ←→ Tool inch mm		Tool	Handles	Cutting ca Ø inch	apacities Ø mm	Cutting ed inch	ge length mm	ے Ounces	
90 25 40	8 1/4	210	MM galvanized w		with multi-component grips	1 - 1 37/64	26 - 40	1 37/64	40	17.6
90 29 40		Spare l	blade fo	r 90 25 40						

Punch Lock Riveters



90 42 340

- to join metal section sheets used in drywalling with a lock seam
- for U- and C-shaped sections with max 3/64" (5/64 x 1/64) metal
- minimal handforce required due to optimum lever transmission
- pliers body: Special tool steel; rolled, oil-hardened

90 42 250 for one handed operation



Preparing the pliers for connection of two metal section sheets



The punching tool is squeezed through the metal section sheets

Product Number	←→ inch	←→ mm		Pliers	Handles	Capacity		ے Ounces
90 42 250	10	250	WW	burnished	with multi-component grips	3/64" (5/64 x 1/64)	max. 1,2 (2 x 0,6)	23.8
90 42 340	13 2/5	340		burnished	with multi-component grips	3/64" (5/64 x 1/64)	max. 1,2 (2 x 0,6)	31.8

90 49 340	Spare punch for 90 41 340 and 90 42 340
90 49 340 M	Spare die for 90 41 340 and 90 42 340



Sheet Metal Nibbler



Product Number	←→ inch	←→ mm		Tool	Handles	۵۵ Ounces	
90 55 280	11	280	W **	nickel plated	with multi-component grips	16.3	
90 59 280		Spare blade for 90 55 280					

- for cutting iron, copper or aluminium sheet metal up to max. 3/64" thickness, plastic up to max. 5/64" thickness
- materials are cut without deformation
- clean-cut edges
- with chip breaker
- easy handling
- cutting width: 7/64"
- tool body: Special tool steel; rolled, oil-hardened
- blade: Special tool steel; oil-hardened, interchangeable





Notching and chip breaking in a single pass

Notching without chip breaking





The KNIPEX Notching Pliers produce the most common notches in plastic ledges and cable ducts in a simple, fast and clean way. No time-consuming sawing out or nibbling and no additional work required.

- special pliers for notching recesses into plastic ledges and plastic casings for electric and sanitary installation
- notches can be enlarged by initial and final cut
- clean-cut edges
- easy handling
- with opening spring, opening limiter and locking lever
- pliers body: Special tool steel; rolled, oil-hardened

Product Number	←→ inch	←→ mm		Pliers	Handles	Capa	۵۵ Ounces	
90 61 16	10	250	MM	burnished	with plactic grips	5/8 - 1 1/4"	16 x 32 mm	14.2
90 61 20	10	250	/۷۷۷\	bullistieu	with plastic grips	51/64 - 1 9/64	20 x 29 mm	14.6





Revolving Punch Pliers



Product Number	←→ inch	←→ mm		Pliers	Finish	∆¹∆ Ounces
90 70 220	8 3/4	220	MM	red powder coated	powder coated	8.9

- for punching out holes in leather, textiles and plastic materials
- with six interchangeable punches: 5/64, 3/32, 1/8, 9/64, 5/32, 13/64 in dia.
- with opening spring and locking lever
- powder coated for reliable protection against rust
- pliers body and punches: Special tool steel; oil-hardened





Interchangeable punches



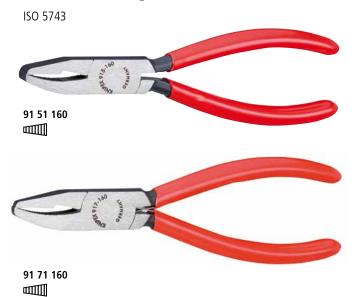
Glass Breaking Pincer



- for breaking glass to a scored line
- Special tool steel; forged, oil-hardened

Product Number	←→ inch	←→ mm	Pliers	Head	Handles	Jaw v inch	vidth mm	∆ Ounces
91 31 180	7 1/4	180	black atramentized	polished	plastic coated	15/16	24.0	8.6

Glass Nibbling Pincers



- for breaking off narrow strips of glass to a scored line
- for finishing off glass edges to required profile
 Special tool steel; forged, oil-hardened

							Jaw v	width	
Product	←→			Pliers	Head	Handles	inch	mm	47
Number	inch	mm							Ounces
91 51 160	6 1/4	160		black atramentized	polished	plastic coated	3/8	9.5	5.2
91 71 160	6 1/4	1/4 160		black atramentized	polished	plastic coated	5/32	4.0	5.0



Flat Nose Grozing Pliers



- with soft gripping jaws
- for trimming glass edges, e.g. when making leaded glass windows
- Special tool steel; forged, oil-hardened

Product Number	←→ inch	←→ mm	Pliers	Head	Handles	Jaw v inch	vidth mm	∆¹∆ Ounces
91 61 160	6 1/4	160	black atramentized	polished	plastic coated	3/8	9.5	5.0

Precision Tweezers needle-pointed shape



92 22 13



■ for	ultra	fine	mounting	wor	k
- 101	uilla	IIIIe	IIIOUIIIIIII	WUI	١

- extra fine tips
- smooth gripping surfaces
- stainless, non-magnetic
- non-reflective matte finish

92 22 12

straight pattern

92 22 13

solid; straight pattern; stainless, non-magnetic and acid-proof

Product Number	←→ inch	←→ mm		Finish	∆ ∆ Ounces
92 22 12	4	105	₩□	stainless, non-magnetic	5.0
92 22 13	5 1/4	135	₩□	stainless, non-magnetic, acid-proof	7.0

Precision Tweezers

with dowel pin pointed shape



92 34 36

№ <u>√45°</u> <u>——</u>

= []	niver	rsallv	ann	licat	٦le

- narrow tips
- gripping surfaces with fine transverse serration
- serrated handles

straight pattern; non-reflective matte finish; stainless, non-magnetic and acid-proof

92 34 36

bent tips; nickel plated

Product Number	←→ inch	←→ mm		Finish	∆ ∆ Ounces
92 22 35	6	155	₩ 💷	stainless, non-magnetic, acid-proof	8.0
92 34 36	6	155	 ₹ 45° ■	nickel plated	8.0

Precision Tweezers blunt shape



- 92 70 46 ※ ■
- Finish **Product ←**▶ Number Ounces inch mm 5 3/4 92 70 46

- universally applicable
- straight pattern
- wide, round tips
- serrated handles

92 70 46

round tips, approx. 9/64 in wide; gripping surfaces with fine transverse serrations; black, non-reflective lacquered

92

Precision Tweezers ESD











- Chrome nickel steel: stainless, non-magnetic (18/10); very popular electronics quality
- ESD coating: non-reflective black, with a surface resistance of approx. 10⁵ Ohm
- tips: non-reflective, brushed
- gripping surfaces: matte-finish for optimum grip

92 08 78 ESD

for SMD-technology*; bent tips; smooth gripping surfaces

92 28 69 ESD

straight pattern; strong tip; smooth gripping surfaces

92 38 75 ESD

sickle-shaped tips; smooth gripping surfaces

92 58 74 ESD

round tips, approx. 5/64 in. wide; straight pattern; smooth gripping surfaces

Product Number	←→ inch	←→ mm		Finish	∆ ∆ Ounces
92 08 78 ESD	4 3/4	120	\$ △ △ 45° □	stainless, non-magnetic, electrically dissipative	5.6
92 28 69 ESD	5 1/4	130	₩ 🖾 🖂	stainless, non-magnetic, electrically dissipative	7.0
92 38 75 ESD	4 3/4	120	\$ △ △ 45° □	stainless, non-magnetic, electrically dissipative	6.0
92 58 74 ESD	4 3/4	120	₩ 🖾 🗆	stainless, non-magnetic, electrically dissipative	7.0

^{*} SMD-Technology: technique for soldering surface-mounted components on printed circuit boards without using holes. Technical change and errors excepted

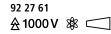
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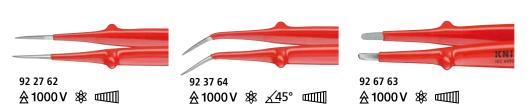
Precision Tweezers insulated

IEC 60900 ASTM F1505



- insulated and tested according to IEC 60900 : ASTM F1505
- plastic dipped insulated
- nickel plated
- Spring steel, high-strength





Product Number	←→ inch	←→ mm		Finish	∆ ∆ Ounces
92 27 61	5 1/4	130	≙1000V ⊗ □	plastic dipped insulated	1.1
92 27 62	6	150	☆1000V ※ □□□	plastic dipped insulated	1.2
92 37 64	6	150	<u>A</u> 1000 V № <u>√</u> 45° □□□	plastic dipped insulated	1.2
92 67 63	5 3/4	145	≙1000V இ ■■■	plastic dipped insulated	1.5

92 27 61

for ultra fine mounting work; extra fine tips; straight pattern; gripping surfaces matte-finished for optimum grip

92 27 62

straight pattern; gripping surfaces with fine transverse serration

92 37 64

bent tips; gripping surfaces with fine transverse serration

92 67 63

straight pattern; serrated gripping surfaces

95

Cable Shears



- insulated and tested according to IEC 60900 / ASTM F 1505
- not suitable for ACSR, steel wire and hard drawn copper conductors
- precision ground, hardened blades
- no crushing
- with pinch guard and slip guard
- adjustable bolted joint
- shears body: Surgical steel; stainless, air-hardened
- handles: plastic, impact-resistant

95 06 230

for copper conductors single wire up to 16 mm², multiple wire up to 1/0 AWG, fine- stranded up to 70 mm² and aluminium conductors multiple wire up to 70 mm²; easy cutting with one handed operation due to high transmission ratio; stainless – surgical steel, oil-hardened and tempered

						Cu	tting capacit	ies		
Product	←→	←→		Head	Handles	⊕		₩	AWG	$\Delta \Delta$
Number	inch	mm				Ø inch	Ø mm	mm²		Ounces
95 06 230	9 1/4	230	☆ 1000 V △ 😂 😂 🖫 🖫	polished	plastic insulated, VDE-tested	5/8	16.0	50	1/0	9.7



Cable Shears







95 18 165 SBA ★ 1000 V ♠ ♣ ♦ ₽ ■ ■



- for cutting copper and aluminium cables, single and multiple wire
- not suitable for ACSR, steel wire and hard drawn copper conductors
- precision ground, hardened blades
- clean and smooth cut without crushing and deformation
- easy cutting with one hand operation
- with pinch guard and slip guard
- adjustable bolted joint, self-locking screw
- High-grade special tool steel; forged, oil-hardened

Style 2

internal opening spring, protected and captive



Cut performed with a Diagonal Cutter: high effort required, inaccurate cut, considerable deforming and crushing of the cable



Cut performed with a Cable Shear: easy, clean cut without any deformation of the cable

Product Number	←→ inch	←→ mm		Style	Tool	Handles	❸	ng capac Ø Ø mm	ities	AWG	∆ Ounces
95 11 165	6 1/4	165	*1	1	burnished	plastic coated	19/32	15.0	50	1/0	7.6
95 12 165	6 1/4	165	*1	1	burnished	with multi-component grips	19/32	15.0	50	1/0	8.8
95 18 165 SBA	6 1/4	165	♦ 1000 V ♦ 6	1	burnished	insulated with multi-component grips, VDE-tested	19/32	15.0	50	1/0	8.8
95 21 165	6 1/4	165	⊕™	2	burnished	plastic coated	19/32	15.0	50	1/0	7.6
95 22 165	6 1/4	165	⊕ EI MM	2	burnished	with multi-component grips	19/32	15.0	50	1/0	9.0

Cable Shears with twin cutting edges

(PATENTED)









The double cutting edge allows a comfortable handle position in all cutting situations inside the specified cutting capacity.



- for cutting copper and aluminium cables
- not suitable for ACSR, steel wire and hard drawn copper conductors
- precision ground, hardened blades
- clean and smooth cut without crushing and deformation
- by dividing the cutting actions into initial cut (insulating sheath in the front cutting area) and final cut (conductor in the back cutting area), cables up to Ø 51/64" can be cut in one handed operation
- less effort required due to favorable lever ratio and optimized cutting edge geometry
- with pinch guard and slip guard
- adjustable screw joint, self-locking
- High-grade special tool steel; forged, oil-hardened

95 18 200 SBA

• insulated and tested according to IEC 60900 and ASTM F1505



Initial cut: Using the front cutting edge to cut the insulating sheath on larger cable diameters leaves an ergonomic handle opening width.



Final cut: After cutting the sheath in the front profile, the cut is finished through the metal part of the cable in the rear profile. Initial cut in the front profile, final cut in the rear profile - to keep it as easy as possible.

Product Number	←→ inch	←→ mm		Tool	Handles	Cut Ø Ø inch	ting capaci Ø mm	ties	AWG	۵۵ Ounces
95 11 200	8	200	***	burnished	plastic coated	51/64	20.0	70	2/0	10.0
95 12 200	8	200	81	burnished	with multi-component grips	51/64	20.0	70	2/0	11.4
95 18 200 SBA	8	200	♦ 1000 V ♦ 	burnished	insulated with multi-component grips, VDE-tested	51/64	20.0	70	2/0	12.0

Cable Shears



- for cutting copper and aluminium cables, single and multiple wire
- not suitable for ACSR, steel wire and wire ropes
- precision ground, hardened blades
- clean and smooth cut without crushing and deformation
- low handforce required due to favorable lever ratio and new blade geometry
- short design, length only 20"
- lightweight
- with pinch guard
- adjustable bolted joint
- cutter head: Vanadium electric steel; forged, oil-hardened
- handle shank: aluminium tube, high-strength

95 17 500

insulated and tested according to IEC 60900 and ASTM F1505



Large cutting capacity: max. 1" dia. / cap. max. AWG 5/0

							tting capacit			
Product	←→	←→		Head	Handles	₩		❤	AWG	47
Number	inch	mm				Ø inch	Ø mm	mm²		Ounces
95 12 500	20	500	***	burnished	with multi-component grips	1	27.0	150	5/0	38.4
95 17 500	20	500	☆ 1000 V △ ← ◆ ● ■ ■	polished	plastic dipped insulated, VDE-tested	1	27.0	150	5/0	52.1

95

Cable Cutters (ratchet action)

(PATENTED)





95 31/36 280

suitable for aluminium sector cable up to 4 x 150 mm²

- for cutting copper and aluminium cables, single and multiple wire
- not suitable for ACSR, steel wire and wire ropes
- precision ground, hardened blades
- clean and smooth cut without crushing and deformation
- one handed operation using ratchet principle
- little handforce required due to very high transmission ratio
- two-stage ratchet drive for easy cutting
- simple handling as a result of light weight and compact design can be used even in confined areas
- with pinch guard and slip guard
- High-grade special tool steel; forged, oil-hardened



95 31 280: Large cutting capacity: max. 2" dia. / cap. max. 750 MCM



Ratchet principle and two-stage ratchet drive for easier cutting

Cable Cutters (ratchet action)

(PATENTED)

95 36 250 / 280

insulated and tested according to IEC 60900 and ASTM F1505



95 36 250 ★1000 V ♠♠ ♦ MM ►■



95 31 250/280: fixed handle with support area as an aid to position the pliers when cutting

							ting capaci			
Product Number	←→ inch	←→ mm		Tool	Handles	Ø inch	Ø mm	mm²	MCM	∆∆ Ounces
95 31 250	10	250	& MM £ 3	black lacquered	with multi-component grips	1 1/4	32.0	240	500	23.8
95 31 280	11	280	*************************************	black lacquered	with multi-component grips	2	52.0	380	750	30.3
95 36 250	10	250	≙1000 V @ € \$ MM € €	black lacquered	insulated with multi-component grips, VDE-tested	1 1/4	32.0	240	500	23.0
95 36 280	11	280	≙1000 V @ € ₩ ¶ ¶	black lacquered	insulated with multi-component grips, VDE-tested	2	52.0	380	750	29.5

95

Cable Cutters (ratchet action)





95 36 320 <u>↑</u> 1000 V ♠ ♥ ₩ ► ■

Sturdy. Easy to use. Innovative ratchet-drive. For cable up to 2 23/64" in diameter.

- easy handling due to low weight (28.2 oz) and compact construction (12 1/2" length) – usable in confined areas
- cutting through copper and aluminium cables with diameters of up to 2 23/64" in one handed and two handed operation
- hardened cutting edges, precisely ground, cut smoothly and neatly without crushing
- for cutting copper and aluminium single conductors as well as multiple stranded cables
- not suitable for cutting ACSR, steel wire and wire ropes
- innovative three-stage ratchet-drive with high leverage for easy cutting in one handed and two handed operation
- with pinch guard and slip guard
- fixed handle with support area for laying down the pliers when cutting
- High-grade special tool steel; forged, oil-hardened

95 36 320

■ insulated and tested according to IEC 60900 and ASTM F1505

							ing capaci			
Product Number	←→ inch	←→ mm		Tool	Handles	Ø inch	Ø mm	mm²	MCM	∆∆ Ounces
95 32 320	12 1/2	320	*************************************	black atramentized	with multi-component grips	2 23/64	60.0	600	1200	28.2
95 36 320	12 1/2	320	≙1000 V @ € \$ MM € €	black atramentized	insulated with multi-component grips, VDE-tested	2 23/64	60.0	600	1200	28.2
95 39 280		Movab	le spare blade for 95 31 280 / 9	5 36 280						

Cable Shears (ratchet action)

with telescopic handles







The handles are adjustable in length and can be angled for easier work: set the handle length to the optimum lever for powerful cutting; put the handle at an angle for an ergonomic gripping position.

Cable Shears with adjustable telescopic handles allow angular positioning

- for cable diameters up to 1 1/2"; handles can be positioned at an angle to set the optimum handle width; also suitable for work in confined areas
- comfortable work thanks to ratchet action and light weight
- heavy duty telescopic handles made of oval aluminium tubing; extendable up to 30" for maximum leverage on large cable diameters; retractable down to 22" for minimum space requirements during transport
- replaceable cutting head
- extensive cutting range up to max.
 Ø 1 1/2" or max. 550 MCM in copper and aluminium cables
- easier, neater cut due to optimized cutting edge geometry
- adjustable bolted joint
- cutting head: Special quality, high-grade tool steel; oil-hardened
- handles: high-strength oval aluminium tubing





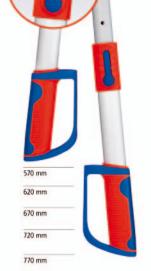
Setting of a favorable handle position



After the first partial cut, the handles open by ratchet



Repeat cutting and opening actions until the cable is cut through



Product Number	←→ inch	←→ mm		Head	Handles	Cu Ø inch	tting capacit Ø mm	ies mm²	МСМ	۵۵ Ounces
95 32 038	22	560	91	burnished	with multi-component grips	1 1/2	38.0	280	550	69.8

95 39 038

Spare cutter head for 95 32 038



Cable Cutters (ratchet action)

with telescopic handles



 handle length with multiple position adjustment from 15 3/4" - 23 5/8" (short transport length, individual adaptation to working conditions)

- for copper and aluminium cables, single and multiple wire – also with hard rubber or plastic sheath
- not suitable for steel wire and wire ropes
- also suitable for cables with sheet metal sheath
- little handforce required for cutting due to optimum transmission ratio
- with pinch guard
- high cutting capacity due to two handed operation and ratchet action
- the blade can be opened in any cutting position
- blade: Special quality, high-grade tool steel; oil-hardened
- handles: high-strength oval aluminium tubing



old : with steel tubing	with heavy- tel	new: duty aluminium lescopic shanks	
		30% reduction in weight	

					Handles		ting capacit			
Product Number	←→	←→		Head	Handles		€	₩ _	MCM	77
Number	inch	mm				Ø inch	Ø mm	mm ²		Ounces
95 32 060	24 3/4	630	**	burnished	with multi-component grips	2 23/64	60.0	740	1400	135.0
95 32 100	26	680	WED	buillisileu		3 15/16	100.0	960	1900	176.0
OF 20 720		N / -		f OF 21 72	0 / 05 22 060					

95 39 720 Movable spare blade for 95 31 720 / 95 32 060 95 39 870 Movable spare blade for 95 31 870 / 95 32 100

Wire Rope Shears forged

double function: neat cutting, precise crimping



Cuts all wire ropes without splaying or fanning out, including strong materials like tire cord.



- with two crimping dies for end caps on Bowden cable sheaths and end ferrules for wire rope
- comfortable work thanks to slim design and internal opening spring
- bolted joint for precise blade guidance, readjustable
- high leverage for reduced effort
- cutting edge hardness approx. 64 HRC
- Chrome vanadium heavy-duty steel; forged, oil-hardened



									Cutting ca					
Product Number	←→ inch	←→ mm		Head	Handles	Ø inch	Ø inch	Ø inch	Ø inch	Ø mm	Ø mm	Ø mm	Ø mm	∆ ∆ Ounces
95 61 190	7 1/2	190	\$ ◎ ● MM	polished	plastic coated	9/32	1/4	5/32	7/64	7.0	6.0	4.0	2.5	11.0
95 62 190	7 1/2	190	****	polished	with multi-component grips	9/32	1/4	5/32	7/64	7.0	6.0	4.0	2.5	11.0



Bowden Cable Cutter



- for Bowden cables and soft wire rope up to 1/8" dia. (also V2A)
- smooth and clean cutting due to special shape of the cutting edges
- sickle shape cutting edges surround the material and prevent the wire rope fanning out
- little handforce required due to very high transmission ratio
- with opening spring and locking lever

- cutting edges additionally induction hardened
- High-grade special tool steel; forged, oil-hardened



Product Number	←→ inch	←→ mm		Shears	Head	Handles	Cutting ca Ø Ø inch	pacities © Ø mm	∆∆ Ounces
95 61 150	6	150	T	black atramentized	polished	plastic coated	1/8	3.0	7.2



Wire Rope and Cable Cutters



- for ACSR, wire ropes and steel rods, copper and aluminium cables
- angular cutting blades prevent fanning out
- optimum transmission ratio for high cutting performance
- bolted cutter head; replaceable
- lightweight
- cutter head: High-grade special tool steel; oil-hardened
- handles: aluminium, high-strength, drop forged



95 77 600

• insulated and tested according to IEC 60900 and ASTM F1505

Product Number	←→ inch		Head	Handles	Cutt inch	ing capacit Ø Ø inch	ies ① Ø inch	AWG	∆ ∆ Ounces
95 71 445	17 1/2	* 1	polished	with plastic grips	3 3/4	25/64	9/32	3/0	38.2
95 71 600	23 1/2	* 1	polished	with plastic grips	5 29/32	35/64	23/64	5/0	60.5
95 77 600	23 1/2	≙ 1000 V ♦ ◎ ₽ 3	polished	plastic dipped insulated	5 29/32	35/64	23/64	5/0	83.2

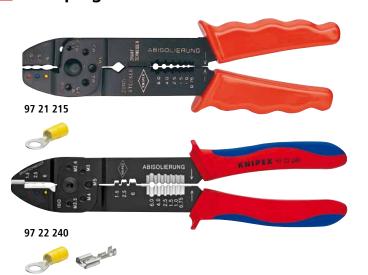
Product Number	←→ mm		Head	Handles	₩ mm²	Ø mm	● Ø mm	AWG	∆ ∆ Ounces
95 71 445	445	801	polished	with plastic grips	95	10.0	7.0	3/0	38.2
95 71 600	600	801	polished	with plastic grips	150	14.0	9.0	5/0	60.5
95 77 600	600	≙ 1000 V ♦ ◎ • • •	polished	plastic dipped insulated	150	14.0	9.0	5/0	83.2

95 79 445 Spare cutter head for 95 71 445

95 79 600 Spare cutter head for 95 71 600 / 95 77 600

95 89 600 Spare cutter head for 95 81 600

Crimping Pliers



- for cutting cables, stripping wire and crimping insulated and non-insulated terminals, connectors and plug type connectors
- with threaded holes for cutting copper and brass screws threaded M 7/64, 1/8, 9/64, 5/32 and 13/64"
- Special steel; high-strength



Product Number	←→ inch	↔ mm	Pliers	Handles			Applications	Capacity mm ²	AWG	Number of crimping positions	∆ Ounces
97 21 215	8 1/2	215	burnished	with plastic grips	ō	3	insulated terminals and plug connectors	0.75 - 6.00	10 - 18	3	7.9
97 22 240	9 1/4	240	black lacouseed	with multi-	<u>-</u>	399	insulated terminals and plug connectors	0.75 - 6.00	10 - 18	3	10.6
97 22 240	9 1/4	240	black lacquered	component grips	A	Care de la constitución de la co	non-insulated open plug-type connectors (plug width 6,3 mm)	0.50 - 6.00	10 - 20	3	10.6

Crimping Pliers



- for cutting cables, stripping wire and crimping insulated and non-insulated terminals and connectors
- with threaded holes for cutting copper and brass screws threaded M 7/64, 1/8, 9/64, 5/32 and 13/64"
- Special steel; high-strength

Product Number	←→ inch	←→ mm		Pliers	Handles			Applications	Capacity mm²	AWG	Number of crimping positions	۵ ^۱ ۵ Ounces
97 32 225	9	225	MM	hurnichad	with plastic grips		3	insulated terminals and plug connectors	0.5 - 6.0	10 - 20	3	8.5
31 32 223	3	223	/۷۷۷\	buttilstied	with plastic grips	U	0	non-insulated terminals and plug connectors	0.5 - 2.5	13 - 20	3	0.5

Crimp System Pliers

(PATENTED)

for exchangeable crimping dies







Crimp System Pliers 97 43 200 with crimping dies 94 49 30 for non-insulated butt connectors



Crimp System Pliers 97 43 200 with crimping dies 97 49 35 for spark plug connectors

With the possibility of crimping almost all currently available crimping connections with just one tool and state-of-the-art crimping pliers technology, the Crimp System Pliers solves almost all tasks in mobile and stationary crimping technology and is an excellent tool for professionals to use for standard crimping.

- just one tool for almost 1,000 crimping applications
- almost parallel crimping movement
- repetitive, high crimping quality due to precision dies and integral lock (self-releasing mechanism)
- crimping pressure has been set precisely (calibrated) in the factory
- optimum transmission of force due to lever action for fatigue-reduced operation
- ergonomically designed handles
- different locators for precise positioning of the connectors
- crimp dies for applications not covered in the range offered are available upon request.
- Chrome vanadium electric steel in special quality; oil-hardened

97 43 200

in a plastic case; foam insert with recesses for crimping dies and locators; with service tool (Allen key), screws and nuts; without crimping dies

97 43 200 A

pliers without crimping dies, without case

97 43 05

with attached crimping dies for non-insulated open plug-type connectors (3/16 and 1/4" connector width)

97 43 06

with attached crimping dies for insulated terminals and plug connectors



97 43 200 with crimping dies 97 49 61 and locator 97 49 90 for turned types of connectors with varying pin diameters,



97 43 400 Crimp System Pliers with crimping dies 97 49 24 and locator 97 49 93 for D-Sub plugs

Product Number	←→ inch	←→ mm				Pliers	Handles	Applications	Capacity mm ²	AWG	Number of crimping positions	∆ ∆ Ounces
97 43 200	8	200	MM			burnished	with multi-component grips	see crimping dies profile table				34.9
97 43 200 A	8	200	MM			burnished	with multi-component grips	see crimping dies profile table				20.2
97 43 05	8	200	MM	<u> </u>	Secretary Secret	burnished	with multi-component grips	Crimp System Pliers for non-insulated open plug-type connectors (3/16 and 1/4 in connector width)	0.5 - 6.0	10 - 20	3	21.8
97 43 06	8	200	MM	Ō	-	burnished	with multi-component grips	Crimp System Pliers for insulated terminals and plug connectors	0.5 - 6.0	10 - 20	3	21.5

Crimping Dies for Crimp System Pliers

•			or ermip system riners								
Product Number			Applications	Capacity mm ²	AWG	Capacity SW inch	Capacity SW mm	Sleeves Ø inch	Sleeves Ø mm	Number of crimping positions	∆ ∆ Ounces
97 49 04	A	Contraction of the second	non-insulated Spade Plug Connectors	0.1 - 2.5	13 - 27					4	1.5
97 49 05	A	Service Servic	non-insulated Spade Plug Connectors	0.5 - 6.0	10 - 20					3	1.6
97 49 06	=	3	insulated terminals and plug connectors	0.5 - 6.0	10 - 20					3	1.6
97 49 08			End Sleeves (ferrules)	0.25 - 6.0	10 - 23					5	1.7
97 49 09			End Sleeves (ferrules)	10 / 16 / 25	3/5/7					3	1.8
97 49 13	ŭ		non-insulated terminals and plug connectors	0.5 - 10.0	7 - 20					4	1.3
97 49 15	<u>~</u>		Spade Plug connectors and non-insulated open plug type connectors (plug width 6,3 mm)	1.25-2.5 + 3.0-6.0	13 - 17 9 - 12					2 + 1	2.0
97 49 16			insulated terminals and plug connectors	10.0 - 16.0	5 / 7					2	1.6
97 49 18			Twin end sleeves (ferrules) for two flexible conductors	2x6 10 / 16	5 / 7 / 10					3	1.7
97 49 19			End Sleeves (ferrules)	35 - 50	0/2					2	1.6
97 49 20			F-connectors for TV and satellite conncetions			9/32 21/64 21/64	7.0 8.4 8.1	19/64 3/8 3/8	7.7 9.5 9.5	3	1.8
97 49 23	ŭ		non-insulated terminals and plug connectors	16 + 25	3 + 5					2	1.6
97 49 24	^	- Kall	D Sub; HD 20; HDE plug	0.03 - 0.56	20 - 32					3	1.4
97 49 30		Tarakan Maria	non-insulated butt connectors	1.5 - 4.0 6.0 + 10.0*	11 - 15 7 + 10					3 2	1.3
97 49 35	<u> </u>		Spark plug connectors and distributors	1	17					5	1.8
97 49 40		(M)	Coax connectors RG 58, 59, 62, 71, 223			7/32 1/4 5/64	5.4 6.48 1.72	1/4 19/64 5/64	6.4 7.6 2.1	3	2.0
97 49 44		and the same	rolled contacts	0.14 - 1.5	15 - 26					3	1.6
97 49 50		O	Coax connectors / Car phone RG 58, 174, 188, 316			1/8; 11/64; 7/32; 5/64; 3/64		5/32; 7/32; 1/4; 5/64; 3/64; 3/64	3.9, 5.4; 6.4; 2.1; 1.3; 0.95	6	1.7
97 49 54	A	en El	modular plugs	0.5 - 2.5	13 - 20					4	1.7
97 49 59			Solar cable connector Helios H4 (Amphenol)	2.5 + 4.0 + 6.0 mm ²	10 - 13					3	1.2
97 49 60		- Trib	turned contacts (HTS + Harting)	0.14 - 4.0	11 - 26					4	1.9
97 49 62			Solar connectors (Huber + Suhner)	2.5 + 4.0	11 + 13					3	1.4
97 49 64			ABS connectors	1.0 - 6.0	10 - 17					2	2.6



Product Number			Applications	Capacity mm ²	AWG	Capacity SW inch	Capacity SW mm	Sleeves Ø inch	Sleeves Ø mm	Number of crimping positions	۵ ^۲ ۵ Ounces
97 49 66 4			MC4 (Multi-Contact) solar connectors cutting – stripping – crimping	4.0	11					1	1.2
97 49 66 6	<u>-</u>		MC4 (Multi-Contact) solar connectors cutting – stripping – crimping	6.0	10					1	1.2
97 49 69 1			Solar connectors (Wieland)	1.5 - 2.5	13 + 15					2	1.2
97 49 69 2			Solar connectors (Wieland)	4.0 - 10.0	7 - 11					3	1.2
97 49 70	₩		Western plugs	4, 6, 8-poles RJ 10 / 11 / 12 / 45						3	2.5
97 49 74	-	(2)	unshielded Molex plugs	4, 6, 8-poles RJ 10 / 11 / 12 / 45						3	1.5
97 49 76	—		shielded Stewart plugs							2	1.8
97 49 81		350	Harting connectors for fiber optics			1/8 3/16 1/4	3.0 4.95 6.5	9/64 15/64 19/64	3.5 6.0 7.5	3	1.8
97 49 82		350	Telegärtner connectors for fiber optics			1/8 9/64 11/64	3.25 3.65 4.52	9/64 5/32 7/32	3.6 4.0 5.4	3	2.0
97 49 83		-35"	F-SMA, ST-,SC + STSC/K-connectors for fiber optics			9/64 11/64 13/64	3.65 4.2 5.0	11/64 7/32 1/4	4.3 5.4 6.0	3	2.1
97 49 84		350	Harting/Suhner connectors for fiber optics			5/32 11/64 3/16	3.8 4.3 4.95	11/64 13/64 1/4	4.5 5.2 6.0	3	1.8
97 49 87		310	F-SMA, ST and MIC connectors for fiber optics			11/32	8.7	3/8	9.5	1	1.6

 $^{^{\}star}$ compression joints in conformance to DIN 46267

97

Locators for crimping pliers and crimping dies

Product Number	Applications	∆'∆ Ounces
97 49 59 1	Locator for 97 49 59	1.9
97 49 65 1	Locator for 97 49 65 (solar connectors MC3)	2.5
97 49 66 1	Locator for 97 49 66 (solar connectors MC4)	2.5
97 49 68 1	Locator for 97 49 68 (solar connectors Solarlok)	2.5
97 49 69 11	Locator for 97 49 69 1 and 97 49 69 2	1.9
97 49 90	Locator for 97 49 60 (HTS+Harting)	2.4
97 49 93	Locator for 97 49 24 (D-Sub-plugs)	1.4
97 49 94	Locator for 97 49 04 / 97 52 04 / 97 52 34	2.4
97 49 95	Locator for 97 49 05 / 97 52 05 / 97 52 35	0.8
97 59 65 2	Locator for 97 52 65 / 97 52 65 A / 97 52 65 DG / 97 52 65 DG A	8.4



Locator 97 59 65 2 for four-mandrel crimping pliers, adjustable in length and diameter for various plugs

Mounting Tool for MC3 connectors



97 49 65 2

- •for easy and quick assembly of MC3 solar cable connectors
- for fit solar sleeves for connectors from 2.5 to 10.0 mm²
- ■three capsules (2.5 / 4.0; 6.0; 10.0 mm²) for pulling on the sleeves, integrated in the detachable handle
- ■body: plastic, fiberglass-reinforced



The assembly tool comes with three torpedo capsules for the various cable cross-sections

SOLAR TOOL

Product Number	←→ inch	←→ mm	Capacity mm²	∆ ∆ Ounces
97 49 65 2	12 1/2	325	2.5 - 10.0	16.2

Crimping Pliers for Western plugs



- professional tool for cutting and stripping unshielded ribbon telephone cables
- for crimping 6- and 8-pole Western plugs type RJ 11/12 (3/8" width) and type RJ 45 (15/32" width)
- exact crimping process due to parallel crimping
- repetitive, high crimping quality due to integral lock (self-releasing mechanism)
- optimum transmission of force due to lever action for fatiguereduced operation
- with length cutter and dismantling knife for ribbon cables 1/4" and 1/2" length
- with additional stripping device for round cables
- Chrome vanadium electric steel in special quality; oil-hardened





Product Number	←→ inch	←→ mm			Pliers	Handles	Capacity	Number of crimping positions	∆ ∆ Ounces
97 51 10	7 1/2	190	MM		burnished	with multi-component grips	RJ 11/12 (6-poles) 3/8" (9.65 mm) RJ 45 (8-poles) 15/32" (11.68 mm)	2	12.0

97 59 06

4 spare blades for 97 51 04 / 97 51 10



Crimping Pliers for two handed operation



- the new lever transmission reduces the handforce up to 30% compared to regular crimping pliers
- repetitive, high crimping quality due to precision dies and integral lock (self-releasing mechanism)
- crimping pressure has been set precisely (calibrated) in the factory
- two hand operation for easy crimping of large conductor diameters
- easy handling as a result of well balanced center of gravity, angled head and ergnomically shaped handles
- Chrome vanadium electric steel in special quality; oil-hardened



First step: move the handle with two fingers only until both jaws touch the connector to be crimped



Second step: now use the whole hand for further crimping procedure



Third step: when greater handforce is required, such as e.g. when crimping insulated connectors 6 mm², two handed operation is possible with the longer handles

	oduct ımber	←→ inch	←→ mm		Pliers	Handles			Applications	Capacity mm²	AWG	Number of crimping positions	∆ ∆ Ounces
97	52 05	10	250	MM	burnished	with non-slip plastic grips	A	Contract of the second	non-insulated, open spade plug-type connectors	0.5 - 6.0	10 - 20	3	20.0
97	52 06	10	250	MM	burnished	with non-slip plastic grips	Ō	9	insulated terminals and plug connectors	0.5 - 6.0	10 - 20	3	20.0
97	52 09	10	250	MM	burnished	with non-slip plastic grips			End Sleeves (ferrules)	10 / 16 / 25	3 / 5 / 7	3	20.1
97	52 13	10	250	MM	burnished	with non-slip plastic grips	v	0	non-insulated terminals and plug connectors	0.5 - 10.0	7 - 20	4	19.7
97	52 19	10	250	MM	burnished	with non-slip plastic grips			End Sleeves (ferrules)	35 - 50	0 + 2	2	20.0
97	52 23	10	250	MM	burnished	with non-slip plastic grips	ŭ	0	non-insulated terminals and plug connectors	16 + 25	3 + 5	2	20.0

97 49 94	Locator for 97 49 04 / 97 52 04 / 97 52 34
97 49 95	Locator for 97 49 05 / 97 52 05 / 97 52 35

Crimping Pliers for Western plugs



MM

- professional tool for cutting and stripping unshielded ribbon telephone cables
- for crimping 4-, 6- and 8-pole Western plugs type RJ 10 (19/64" width), type RJ 11/12 (3/8" width) and type RJ 45 (15/32" width)
- exact crimping process due to parallel crimping
- repetitive, high crimping quality due to integral lock (self-releasing mechanism)
- optimum transmission of force due to lever action for fatiguereduced operation
- with length cutter and dismantling knife for ribbon cables 1/4" and 1/2" length

- with additional stripping device for round cables
- Chrome vanadium electric steel in special quality; oil-hardened



Product Number	←→ inch	←→ mm				Pliers	Handles	Capacity	Number of crimping positions	∆ ∆ Ounces
97 51 12	8	200	MM			burnished	with multi-component grips	RJ 10 (4-poles) 19/64" (7.65 mm) RJ 11/12 (6-poles) 3/8" (9.65 mm) RJ 45 (8-poles) 15/32" (11.68 mm)	3	18.4
97 59 12		Spare	blades f	or 97	51 12					



Crimping Pliers short design



- repetitive, high crimping quality due to precision dies and integral lock (self-releasing mechanism)
- crimping pressure has been set precisely (calibrated) in the
- optimum transmission of force due to lever action for fatiguereduced operation
- good handling due to 20° angled head, low weight and short design
- Chrome vanadium electric steel in special quality; oil-hardened



97 52 14 Available as accessory: locator for noninsulated open plug type connectors

Product Number	←→ inch	←→ mm		Pliers	Handles			Applications	Capacity mm²	AWG	Number of crimping positions	∆ ∆ Ounces
97 52 14	8	195	MM	burnished	with multi-component grips	<u> </u>	Service Servic	non-insulated open spade plug type connectors (plug width $7/64'' + 3/16'' / 2.8 + 4.8 \text{ mm}$)	0.10 - 1.5	16 - 27	4	13.7
97 52 20	8	195	MM	burnished	with multi-component grips		O	COAX-, BNC- and TNC-connectors RG 58 / 59 / 62 / 71 / 223			3	13.4

97 59 14 Locator for 97 52 14

97 52

KNIPEX PreciForce® Crimping Pliers



For daily crimping applications, the specialist likes crimping pliers that work precisely and reliably. In addition, they should be light, comfortable to use, robust and reasonably priced — Meet the PreciForce®



- repetitive, high crimping quality due to precision dies and integral lock (self-releasing mechanism)
- crimping pressure has been set precisely (calibrated) in the factory
- high transmission of force thanks to lever action for fatigue-reduced work
- good handling thanks to handle position, low weight, short design and ergonomically shaped handles
- Chrome vanadium electric steel in special quality; oil-hardened





97 52 36 97 52 37

Product Number	←→ inch	←→ mm		Pliers	Handles			Applications	Capacity mm²	AWG	Number of crimping positions	∆ ∆ Ounces
97 52 30	8 3/4	220	MM	burnished	with multi-component grips			non-insulated butt connectors	1.5 - 4,0 6.0 + 10.0*	11 - 15 7 + 10	3 2	16.8
97 52 33	8 3/4	220	MM	burnished	with multi-component grips	ŭ	0	non-insulated terminals and plug connectors	0.5 - 10.0	7 - 20	4	16.9
97 52 34	8 3/4	220	MM	burnished	with multi-component grips		Service Servic	non-insulated open spade plug type connectors (plug width 2.8 + 4.8 mm)	0.1 - 2.5	13 - 27	4	17.0
97 52 35	8 3/4	220	WW	burnished	with multi-component grips	₽	Carlo Carlo	non-insulated open spade plug type connectors (plug width 4.8 + 6.3 mm)	0.5 - 6.0	10 - 20	3	17.4
97 52 36	8 3/4	220	MM	burnished	with multi-component grips	Ō	-	insulated terminals and plug connectors	0.5 - 6.0	10 - 20	3	17.2
97 52 37	8 3/4	220	MM	burnished	with multi-component grips	ō	C SECOND	heat shrinkable sleeve connectors	0.5 - 6.0	10 - 20	3	16.9
97 52 50	8 3/4	220	WW	burnished	with multi-component grips		O	COAX-, BNC- and TNC-connectors for RG 58 / 174 / 188 / 316			6	17.6
97 49 94		Locato	r for 97	49 04 / 97 5	2 04 / 97 52 34							
97 49 95		Locato	r for 97	49 05 / 97 5	2 05 / 97 52 35							

^{*} compression joints in conformance to DIN 46267

Four-Mandrel Crimping Pliers for turned contacts









97 59 65 2



Standard locator

Turned contacts are used for demanding plug type connections, e.g. in the medical industry and aviation. Extremely reliable crimping connections can be achieved only with pliers that work with absolute precision and maintain the required crimping depth in the 1/100 mm range. KNIPEX has all of the tools you need to get these jobs

- for crimping turned contacts
- four-mandrel crimping for top-quality crimping connections
- mandrel gauge to check the basic setting
- repetitive, high crimping quality due to integral lock (self-releasing mechanism)
- optimum transmission of force due to lever action for fatigue-reduced operation
- high operation comfort thanks to ergonomic shape
- Chrome vanadium electric steel in special quality; oil-hardened

97 52 63 DG

fine adjustment of pressure depending on the conductor's diameter by means of adjusting wheel; with digital display of the preset crimping capacities; display reversible between mm / inch and MIL numerical values; packaged in a plastic case with foam insert and locator for holding the contacts

97 52 65

fine adjustment of pressure depending on the conductor's diameter by means of adjusting wheel; locator for positioning the contacts; with table for calculating the settings; packaged in a plastic case with foam insert

97 52 65 DG

fine adjustment of pressure depending on the conductor's diameter by means of adjusting wheel; with digital display of the preset crimping capacities; display reversible between mm / inch and MIL numerical values; with table for calculating the settings; packaged in a plastic case with foam insert and locator for holding the contacts

Universal Locator for 97 52 65 / 97 52 65 A / 97 52 65 DG / 97 52 65 DG A; Chrome vanadium electric steel in special quality, oil-hardened

• locator that is universally adjustable (in length and diameter) for the repeatable exact alignment of turned contacts in crimping pliers; can be set to all commercially available contacts in the four-mandrel crimping pliers' capacity range

Product Number	←→ inch	←→ mm		Pliers	Handles			Applications	Capacity mm²	AWG	Number of crimping positions	∆ ∆ Ounces
97 52 63 DG	8	195	MM	nickel plated	with multi-component grips	×	1	turned contacts	0.08 - 2.5	13 - 28	1	13.7
97 52 65	9	230	MM	nickel plated	with multi-component grips	×	فستنر	turned contacts (Harting; Ilme; Phoenix; Amphenol; Walther; HTS; Contact; Weidmüller)	0.14 - 6.0	10 - 25	1	23.8
97 52 65 DG	10	250	MM	nickel plated	with multi-component grips	×	<i></i>	turned contacts (Harting; Ilme; Phoenix; Amphenol; Walther; HTS; Contact; Weidmüller)	0.14 - 6.0	10 - 25	1	22.3

97 59 65 2

Universal Locator for 97 52 65 / 97 52 65 A / 97 52 65 DG / 97 52 65 DG A



Self-Adjusting Crimping Pliers for end sleeves (ferrules) with lateral access

(PATENTED)



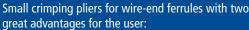
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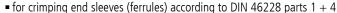


9/ 53 1 MM





- Automatic self-adjustment to the wire end ferrule used. This allows the specialist to work with less strain and enables secure, reliable and quick crimping.
- Extensive range of applications: square crimping 0.08 to 10.0 mm²; hexagon crimping 0.08 to 6.0 mm²



- self-adjusting adaptation to the desired wire end ferrule size:
 no crimping faults caused by using the wrong die
- lateral loading of the end sleeves (ferrules) into the tool
- repetitive, high crimping quality due to integral lock (self-releasing mechanism)
- these tools have been set precisely (calibrated) in the factory
- optimum transmission of force due to lever action for fatigue-reduced operation
- high operation comfort thanks to shape and low weight
- Chrome vanadium electric steel in special quality; oil-hardened

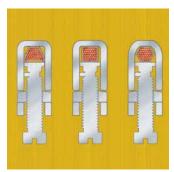
97 53 04

square crimping for optimum contact areas in the clamp connection

97 53 14

heaxagonal crimping for optimum positioning in confined areas





The square crimping allows for better contact. The hexagonal crimping comes very close to the space-saving round shape. Compared to the square crimp, it has the same cross-section and can produce optimum contact in narrow, round terminal connectors. Both crimping shapes allow the user to easily feed into the terminal connection.



Square-crimped wire end ferrules always ensure good contact surfaces in the clamped connection

Product Number	←→ inch	←→ mm		Pliers	Handles		Applications	Capacity mm²	AWG	Number of crimping positions	∆ ∆ Ounces
97 53 04	7 1/4	180	MM	burnished	with multi-component grips	Ø	End Sleeves (ferrules)	0.08 - 10.0	7 - 28	1	14.3
97 53 14	7 1/4	180	MM	burnished	with multi-component grips		End Sleeves (ferrules)	0.08 - 6.0	10 - 28	1	14.3

Self-Adjusting Crimping Pliers for end sleeves (ferrules) with front loading





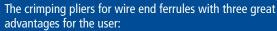




97 53 09 MM







- Automatic self-adjustment to the wire end ferrule used. This allows the specialist to work with less strain and enables secure, reliable and quick crimping.
- Range of applications also for large cross-sections: crimping 7 - 28 + 5 AWG
- Front loading: very helpful under difficult working conditions in confined spaces
- for crimping wire end ferrules
- self-adjusting adaptation to the desired wire end ferrule size: no crimping faults caused by using the wrong die
- front loading of the wire end ferrules into the tool
- repetitive, high crimping quality due to integral lock (self-releasing mechanism)
- crimping pressure has been set precisely (calibrated) in the factory, readjustable
- optimum transmission of force due to toggle lever action for fatigue-reduced operation
- high operation comfort thanks to ergonomic shape and low weight
- Chrome vanadium electric steel in special quality; oil-hardened

97 53 08

Crimping from 7 to 28 AWG (0.08 -10.0 mm²) in one profile; wire end ferrules up to 13 AWG (2.5 mm²) can also be loaded parallel from the side

97 53 09

Crimping from 7 to 28 and 5 AWG (0.08 - 10.0 mm² and 16.0 mm²) in one profile; with selector lever for setting the crimping area either to 7 to 28 or 5 AWG (0.08 - 10.0 mm² or 16.0 mm²)



Square crimping



Front loading of wire end ferrules e.g. in switchboards



97 53 08: Lateral loading of wire end ferrules up to 13 AWG (2.5 mm²) parallel from the side e.g. in confined areas

Product Number	←→ inch	←→ mm		Pliers	Handles		Applications	Capacity mm²	AWG	Number of crimping positions	۵۵ Ounces
97 53 08	7 1/2	190	MM	burnished	with multi-component grips	Ø	End Sleeves (ferrules)	0.08 - 10	7 - 28	1	16.8
97 53 09	7 1/2	190	MM	burnished	with multi-component grips	Ø	End Sleeves (ferrules)	0.08 - 10 + 16	7 - 28 + 5	1	17.1

Crimping Pliers for end sleeves



- for crimping wire end ferrules in an area of application from 13 23 AWG (0.25 up to 2.5 mm²)
- crimping in marked trapezoidal dies for tight connections between the sleeve and the conductor
- Vanadium electric steel; forged, oil-hardened

Product Number	←→ inch	←→ mm		Head	Handles		Capacity mm ²	AWG	Number of crimping positions	∆ ∆ Ounces
97 61 145 A	5 3/4	145		polished	plastic coated		0.25 - 2.5	13 - 23	6	4.9
97 62 145 A	5 3/4	145		polished	with multi-component grips		0.25 - 2.5	13 - 23	6	6.0
97 68 145 A	5 3/4	145	<u></u> 1000 V	polished	insulated with multi-component grips, VDE-tested		0.25 - 2.5	13 - 23	6	6.2

Crimping Pliers for end sleeves (ferrules)



- for crimping wire end ferrules from 5 to 23 AWG (0.25 up to 16 mm²)
- crimping in marked, half-round dies for tight connections between the sleeve and the conductor
- 9 extremely deep troughs with cone-shaped side faces
- Special tool steel; forged, oil-hardened



Product Number	←→ inch	←→ mm	Head	Handles		Applications	Capacity mm ²	AWG	Number of crimping positions	∆ Ounces
97 71 180	7 1/4	180	polished	plastic coated		End Sleeves (ferrules)	0.25 - 16	5 - 23	9	8.5
97 72 180	7 1/4	180	polished	with multi-component grips		End Sleeves (ferrules)	0.25 - 16	5 - 23	9	10.0



97 49 59

Tool Set for Photovoltaics



- with tools for photovoltaics
- with toos for photovortales
 without crimp dies for individual equipment please order separately (see ref. 97 49 ..)
 with service tools (Allen key) for changing crimp dies
- shock-resistant plastic case
- foam insert with recesses for tools, crimp dies and locators
 external dimensions (W x H x D): 13 37/64 x 3 5/32 x 11" external dimensions (W x H x D): 345 x 80 x 280 mm

Product Number	EAN 4003773-			Units	△ Ounces					
97 91 01	070351	Tool Case for Photovoltaics								
		12 12 11	Precision Insulation Stripper with shaped blades	1						
		95 16 165	Cable Shears ★1000 V 🏖 🚭 😂 🐩	1						
		97 43 200	Crimp System Pliers MM	1						
not included	(please order s	separately):								
97 49 62	063179	Crimping dies	for solar cable connectors (Huber + Suhner)							
97 49 63	066675	Crimping dies	for solar cable connectors (Huber + Suhner)							
97 49 65	066682	Crimping dies	for solar cable connectors MC3 (Multi-Contact)							
97 49 65 1	066729	Locator for 97	7 49 65 (solar cable connectors MC3)							
97 49 65 2	072010	Mounting Too	ol for MC3 connectors							
97 49 66	066699	Crimping dies	for solar cable connectors MC4 (Multi-Contact)							
97 49 66 1	066736	Locator for 97	7 49 66 (solar cable connectors MC4)							
97 49 66 4	072096	Crimping dies	for solar cable connectors MC4 (Multi-Contact) cutting - stripping - crimping							
97 49 66 6	072102	Crimping dies	for solar cable connectors MC4 (Multi-Contact) cutting - stripping - crimping							
97 49 67	066705	Crimping dies	for solar cable connectors SunCon (Hirschmann)							
97 49 68	066712	Crimping dies	for solar cable connectors Solarlok (Tyco)							
97 49 68 1	066743	Locator for 97	7 49 68 solar cable connectors (Solarlok)							
97 49 69 1	072119	Crimping dies	rimping dies for solar cable connectors gesis® PST 40 (Wieland)							
97 49 69 2	072126	Crimping dies	for solar cable connectors gesis® PST 40 (Wieland)							
97 49 69 11	072133	Locator for 97	7 49 69 1 and 97 49 69 2							



073734 Crimping dies for solar cable connectors Helios H4 (Amphenol)



Tool Case for Photovoltaics, MC3 (Multi-Contact)

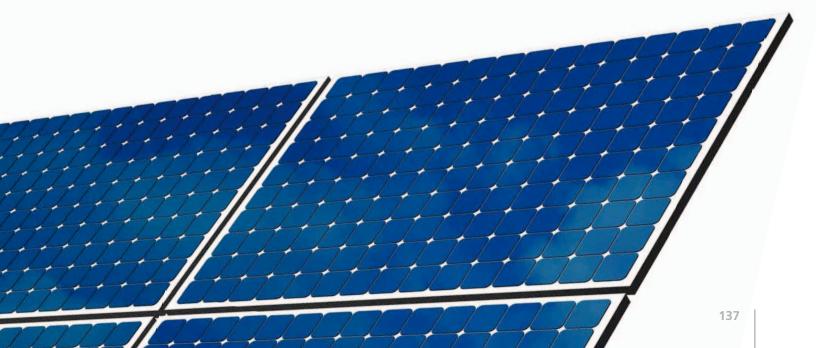


- the complete tool set to install MC3 connectorswith service tools (Allen key) for changing crimp dies
- shock-resistant plastic case

- shock-resistant plastic case
 foam insert with recesses for the tools, crimping dies and locators
 with four empty plastic boxes for consumables for individual equipping
 dimensions, exterior (W x H x D): 14 11/64 x 4 1/8 x 11 13/16" dimensions, exterior (W x H x D): 360 x 105 x 300 mm

Product Number	EAN 4003773-				Quantity	∆ ∆ Ounces
97 91 02	074083	Tool Case for F	Photovoltaics, MC3 (Multi-Contact)			75.0
		12 12 11	Precision Wire Stripper	MM	1	
		95 16 165	Cable Shears	≙ 1000 V △ ♣ ♦ ♦ ● ■ ■	1	
		97 43 200	Crimp System Pliers	MM	1	
		97 49 65	Crimping dies for solar cable connectors MC3 (Multi-Contact)		1	
		97 49 65 1	Locator for 97 49 65 (solar connectors MC3)		1	
		97 49 65 2	Mounting Tool for MC3 connectors		1	

97 91 02 LE 074090 Tool Case for Photovoltaics, MC3 (Multi-Contact) empty



Product Number		Designation	Width x Thickness	Plug Ø inch	Plug Ø mm	Screws Ø inch	Screws Ø mm	Cable mm²	AWG	Color	Quantity
97 99 01		Female Spade Sockets	mm ² 6.3 x 0.8					0.5 - 1.0	17 - 20	red	75
97 99 02		Female Spade Sockets	6.3 x 0.8					1.5 - 2.5	13 - 15	blue	50
97 99 03	(A)	Female Spade Sockets	6.3 x 0.8					4.0 - 6.0	10 - 11	yellow	25
97 99 04		Female Spade Sockets	8.0 x 0.8					1.5 - 2.5	13 - 15	blue	50
97 99 05		Male Spade Connectors	6.3 x 0.8					0.5 - 1.0	17 - 20	red	75
97 99 06		Male Spade Connectors	6.3 x 0.8					1.5 - 2.5	13 - 15	blue	75
97 99 07	_	Round Sockets						0.5 - 1.0	17 - 20	red	25
97 99 08	0	Round Sockets						1.5 - 2.5	15 - 13	blue	25
97 99 09		Round Pin Plugs						0.5 - 1.0	17 - 20	red	75
97 99 10		Round Pin Plugs						1.5 - 2.5	13 - 15	blue	50
97 99 11		Insulated Double Spade Connector	6.3 x 0.8					0.5 - 1.0	17 - 20	red	25
97 99 12	4	Insulated Double Spade Connector	6.3 x 0.8					1.5 - 2.5	13 - 15	blue	25
97 99 13		Cable Connectors, eye type				7/64	3.0	0.5 - 1.0	17 - 20	red	100
97 99 14		Cable Connectors, eye type				5/32	4.0	0.5 - 1.0	17 - 20	red	100
97 99 15		Cable Connectors, eye type				13/64	5.0	0.5 - 1.0	17 - 20	red	100
97 99 16		Cable Connectors, eye type				5/32	4.0	1.5 - 2.5	13 - 15	blue	100
97 99 17		Cable Connectors, eye type				13/64	5.0	1.5 - 2.5	13 - 15	blue	50
97 99 18		Cable Connectors, eye type				15/64	6.0	1.5 - 2.5	13 - 15	blue	50
97 99 19		Cable Connectors, eye type				5/16	8.0	1.5 - 2.5	13 - 15	blue	50
97 99 20		Cable Connectors, eye type				13/64	5.0	4.0 - 6.0	10 - 11	yellow	25
97 99 21 97 99 22		Cable Connectors, eye type				15/64 5/16	6.0 8.0	4.0 - 6.0 4.0 - 6.0	10 - 11	yellow yellow	25 25
97 99 22		Cable Connectors, eye type Cable Connectors, eye type				25/64	10.0	4.0 - 6.0	10 - 11 10 - 11	yellow	25
97 99 24		Spade Connectors, forked				5/32	4.0	0.5 - 1.0	17 - 20	red	100
97 99 25		Spade Connectors, forked				5/32	4.0	0.5 - 1.0	17 - 20	red	100
97 99 26	73/10	Spade Connectors, forked				13/64	5.0	0.5 - 1.0	17 - 20	red	75
97 99 27		Spade Connectors, forked				5/32	4.0	1.5 - 2.5	13 - 15	blue	75
97 99 28		Spade Connectors, forked				13/64	5.0	1.5 - 2.5	13 - 15	blue	50
97 99 29		Spade Connectors, forked				13/64	5.0	4.0 - 6.0	10 - 11	yellow	25
97 99 30		Spade Connectors, forked				15/64	6.0	4.0 - 6.0	10 - 11	yellow	25
97 99 31		Pin Connectors						0.5 - 1.0	17 - 20	red	100
97 99 32	ASS	Pin Connectors						1.5 - 2.5	13 - 15	blue	100
97 99 33		Pin Connectors						4.0 - 6.0	10 - 11	yellow	25
97 99 34		Insulated Butt Connectors						0.5 - 1.0	17 - 20	red	50
97 99 35	A CONTRACTOR OF THE PARTY OF TH	Insulated Butt Connectors						1.5 - 2.5	13 - 15	blue	50
97 99 36		Insulated Butt Connectors						4.0 - 6.0	10 - 11	yellow	25
97 99 37		Two-Way-Sockets	6.3 - 0.8								25
97 99 38		Double spade connector	6.3 - 0.8								50
97 99 40		Wire End Ferrules						0.5	20		200
97 99 41		Wire End Ferrules						0.75	18		200
97 99 42		Wire End Ferrules						1.0	17		200
97 99 43		Wire End Ferrules						1.5	15		200
97 99 44		Wire End Ferrules						2.5	13		200
97 99 45		Wire End Ferrules						4.0	11		150
97 99 46		Wire End Ferrules						6.0	10		150
97 99 47 97 99 48		Wire End Ferrules Wire End Ferrules						10.0	7 5		50 50
97 99 48		Wire End Ferrules						16.0 25.0	3		50
97 99 70		Wire End Ferrules with collar						0.5	20	white	200
97 99 71		Wire End Ferrules with collar						0.75	18	grey	200
97 99 72		Wire End Ferrules with collar						1.0	17	red	200
97 99 73		Wire End Ferrules with collar						1.5	15	black	200
97 99 74		Wire End Ferrules with collar						2.5	13	blue	200
97 99 75	1	Wire End Ferrules with collar						4.0	11	grey	150
97 99 76		Wire End Ferrules with collar						6.0	10	yellow	150
97 99 77		Wire End Ferrules with collar						10.0	7	red	50
97 99 78		Wire End Ferrules with collar						16.0	5	blue	50
97 99 79		Wire End Ferrules with collar						25.0	3	yellow	50
97 99 92		Non-insulated Female Spade Connectors						2.8 - 1.5	15		150
97 99 93	The state of the s	Non-insulated Female Spade Connectors						4.8 - 1.5	15		150
97 99 95		Non-insulated Female Spade Connectors						6.3 - 1.5	15		100
97 99 96		Non-insulated Female Spade Connectors						6.3 - 2.5	13		100



INSULATED TOOLS

Work on electrical installations is subject to the special protection tasks of authorities and insurance companies. This resulted in the creation of diverse national and international safety standards (in the US NFPA 70 E, internationally IEC 60364). Only a qualified electrician who respects and follows these and maybe additional regulations is permitted to carry out work on electrical installations (including live working). He has to use special tools for this particular work that have been specifically made for this kind of work and have been thoroughly tested.

KNIPEX insulated tools are made of high-quality materials, which have been manufactured and tested in conformance with the regulations of national and international standards. If the prescribed method for working on electrical installations (see above) are observed, these tools offer the greatest possible protection even when it is necessary to work live up to AC 1000 V (alternating current) and DC 1500 V (direct current).

Since 1987 the IEC 60900 has specified worldwide requirements for tools for live working. For the US this standard has been adapted as ASTM F 1505. Tests on KNIPEX tools which bear the special mark ★ 1000 V include subjecting them to routine tests with 10,000 volts to check their dielectric strength. This gives the user a considerable buffer of additional protection even if work on electrical installations needs to be performed live.

The mark **★ 1000 V** identifies KNIPEX insulated tools as being suitable for live working. The specified standard also shows the requirements our claim can be measured against. The manufacturer name KNIPEX on the insulation indicates that we accept responsibility for the correctness of this information. The marks prove: The observation of these requirements is monitored not only by the KNIPEX quality assurance team but also e.g. by the independent VDE (Association of German Electricians).

Because the purchase of insulated hand tools is a matter of trust.



Type examination, manufacturing inspections and stock monitoring by the independent VDE testing center.

INSULATION BY INJECTION **MOLDED SLEEVES**

(VERSION 6)

KNIPEX pliers with the two-color multi-component handle insulation meet the requirements of the international standard IEC 60900. This claim is confirmed by the VDE/GS mark, awarded by an prestigious independent neutral inspection body and of ASTM F 1505.



The slip guard is designed to prevent the hand from slipping unintentionally on conductive metal parts at the head of the pliers.

DIPPED INSULATION

(VERSION 7)

Other hand tools such as open-ended spanners/single-ended box wrenches, socket wrenches, ratchets etc. are insulated at KNIPEX using a plastic dipping method. These also meet all requirements of the international standards IEC 60900 and ASTM F 1505. To round off this range, KNIPEX also insulates pliers in a dipping process to adapt these tools concerning appearance and production method to the other dipped insulated tools. These pliers also bear the VDE/GS mark.



The firmly bonded extra thick dipped insulation is made of insulating material which is free of harmful substances.

Two layer insulation at the ends of the handles. This prevents cracks caused by an impact.

Always comply with the currently valid regulations and observe the SAFETY INSTRUCTIONS given below:

- Insulated tools must be transported and stored in a manner that will prevent any damage to the insulation.
- Check before every use whether the insulation is damaged in any way, defective tools must be discarded.
- Always keep your insulated tools clean and dry.
- Wear protective goggles when working with cutting nippers or working overhead.
- Always wear goggles or a facial mask when working on, or close to live equipment.
- Make sure the workplace is clean and orderly, particularly when you are working on live installations.
- Wear protective clothing and use additional safety equipment (e.g. insulating gloves, insulating mats, protective covers) especially in confined working spaces.
- Use only a tool with suitable dimensions. That will prevent slipping on the workpiece and unintentional contact with non-insulated parts.
- Make sure that detached parts or cut-off ends of conductors do not fall onto live parts.

KNIPEX INSULATED TOOLS – 100 % TESTED, ONE BY ONE





Testing dielectric strength

Each KNIPEX \triangleq 1000 V insulated tool has been tested individually. This individual testing is done with a test voltage of AC 10,000 volts. This test load, which is 10 times as high as the maximum permitted voltage during work, shows probable cause to the user to trust a reliable insulation when live working.



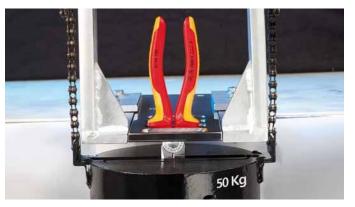
Testing low temperature impact strength

The tools are cooled down to -13°F / -25°C. The insulation material must retain the toughness necessary to ensure that it does not break when hit or knocked.



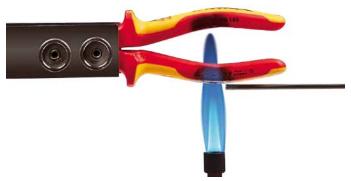
Testing electrical insulation

After submersion in water for 24 hours, the tools are tested with AC 10,000 V for 3 minutes including measuring of the leakage current. The reading of the leakage current must stay below the limits defined in the standards.



Testing the adhesion of the insulating coating

The adhesion of the insulating coating is tested after storage of 168 hours at 158°F / 70°C. In case of pliers a tensile load of 500 N is applied. The insulating material must remain firmly bonded to the basic tool.



Testing burning behaviour

KNIPEX uses only flame-resistant and self-extinguishing plastics for insulation.



Testing indentation resistance

The insulation heated to 158°F / 70°C must prove under standardized test conditions that the warm plastic has sufficient mechanical strength to resist expected loads.

High Leverage Combination Pliers

ISO 5746 IEC 60900 ASTM F1505



02 08 200 SBA





- 35% less effort required compared to conventional combination pliers
- easier work due to high leverage design
- with cutting edges (hardness approx. 63 HRC) for soft, hard, piano and ACSR wire
- long cutting edges for thicker cables
- with gripping zones for flat and round material, suitable for versatile use
- High-grade special tool steel; forged, oil-hardened

02 08 225 S	BA	
☆ 1000 V	ØŁ €	

										Cutting o	apacities	;			
Product Number	←→ inch	←→ mm		Pliers	Head	Handles	Ø inch	Ø inch	Ø inch	₩ AWG	Ø mm	Ø mm	Ø mm	mm²	∆∆ Ounces
02 08 200 SBA	8	200	<u>A</u> 1000 V	black	n alich ad	insulated with	7/64	3/32	1/2	3	2.8	2.2	13.0	25.0	12.1
02 08 225 SBA	9	225		atramentized	polished	multi-component grips, VDE-tested	1/8	3/32	35/64	3	3.0	2.5	14.0	25.0	14.4

03

Combination Pliers

ISO 5746 IEC 60900 ASTM F1505



- with gripping zones for flat and round material, suitable for versatile use
- with cutting edges for soft and hard wire
- long cutting edges for thicker cables
- cutting edge hardness approx. 60 HRC
- Special tool steel; forged, oil-hardened





									Cı	utting ca	pacities				
Product	4→	←→		Pliers	Head	Handles							🥸		47
Number	inch	mm					Ø inch	Ø inch	Ø inch		Ømm	Ømm		mm²	Ounces
03 08 160 SBA	6 1/4	160	<u>A</u> 1000 V			insulated with	1/8	5/64	25/64	5	3.1	2.0	10.0	16.0	7.9
03 08 180 SBA	7 1/4	180	⊕€	black atramentized	polished	multi-component grips,	9/64	3/32	15/32	5	3.4	2.2	12.0	16.0	9.0
03 08 200 SBA	8	200		attamentized		VDE-tested	5/32	3/32	33/64	5	3.8	2.5	13.0	16.0	11.4

Lineman's Pliers New England Style

ISO 5746 ASME B107.20 IEC 60900 ASTM F1505



- heavy duty
- high transmission ratio for easy cutting
- high leverage design requires 40% less effort compared to conventional combination pliers
- effective cross-hatched knurled gripping zone in the jaws for strong gripping and pulling
- additional serrated gripping zone below the articulated joint for powerful leverage
- with cutting edges for soft, hard and ACSR wire
- cutting edge hardness approx. 64 HRC
- Vanadium electric steel; forged, oil-hardened

								Cutting c			
Product	←→	←→		Pliers	Head	Handles					$\Delta \Delta$
Number	inch	mm					Ø inch	Ø inch	Ø mm	Ø mm	Ounces
09 08 240	9 1/2	240	≜ 1000 V △€ △	black atramentized	polished	insulated with multi-component grips, VDE-tested	3/16	1/8	4.6	3.0	16.6

11

Insulation Strippers

IEC 60900 ASTM F1505



- for single, multiple and fine stranded conductors with plastic or rubber insulation of a maximum 13/64" diameter.
 Also suitable for 7 AWG wire.
- easy adjustment to the required diameter of solid or stranded wire with knurled screw and lock nut
- Special tool steel; forged, oil-hardened

							S	tripping c	apacities		
Product Number	←→	←→		Pliers	Head	Handles	Ø inch	Ømm	mm²	AWG	$\Delta \Delta$
	inch	mm									Ounces
11 08 160 SBA	6 1/4	160	≜ 1000 V △€ ///	black atramentized	polished	insulated with multi-component grips, VDE-tested	13/64	5.0	10.0	7	5.9



Installation Pliers

ASTM F1505



A1000 V **AA** ■ **A** ■ **A**

- multifunctional pliers for the electrical installation; for cutting cable, stripping and crimping end sleeves (ferrules), to grip flat and round material, for bending, deburring,
- 6 functions in one pair of pliers
- smooth surfaces near the tips grip single conductors without damaging them; serrated gripping surfaces and pipe grip for gripping flat and round material
- clear-cut outside edge on the jaw for working on flush-mounted junction boxes and deburring feed-through holes
- stripping holes for 12 + 14 AWG
- crimp die for end sleeves (ferrules) 12 20 AWG
- cable shears with (induction-hardened) precision cutting edges for copper and aluminium cables up to 19/32" dia.
- slim dimensions for easy access
- bolted joint: precise, zero backlash operation of pliers
- High-grade special tool steel; forged, oil-hardened

Product Number	←→ inch	←→ mm		Pliers	Head	Handles	Stripping capacit AWG	y for cross-sections mm²	Crimping AWG	capacity mm²	۵۵ Ounces
13 88 8	8	200	À 1000 V (A) → 10	black atramentized	polished	insulated with multi-com- ponent grips, VDE-tested	12 + 14	0.7 - 1.5 + 2.5	12 - 20	0.5 - 2.5	9.9

Flat Nose Pliers

ISO 5745 IEC 60900 ASTM F1505



- flat, short and wide jaws
- serrated gripping surfaces
- Chrome vanadium electric steel; forged, oil-hardened



	duct nber	←→ inch	←→ mm		Head	Handles	L3 inch		mension T1 inch		W3 mm	T1 mm	∆∆ Ounces
20	06 160	6 1/4	160	À 1000 V △₽ 🚃 📖	chrome plated	insulated with multi-component grips, VDE-tested	1 3/16	43/64	3/8	30.0	17.0	9.5	5.1

22

Round Nose Pliers

ISO 5745 IEC 60900 ASTM F1505





round, short jaws; smooth ground

for bending wire loops







								•	•						
Product Number	←→ inch	←→ mm		Pliers	Head	Handles	L3 inch	W3 inch	D1 inch	Dimensio T1 inch	ons L3 mm	W3 mm	D1 mm	T1 mm	∆ Ounces
22 08 160 SBA	7 1/4	160	≜1000∨ ♣€ 8	black atramentized	polished	insulated with multi-component grips, VDE-tested	1 3/16	23/32	1/8	3/8	30.0	18.0	3.0	9.5	6.0

T1

30

Long Nose Pliers

ISO 5745 IEC 60900 ASTM F1505



- heavy duty gripping pliers
- different jaw styles for a wide range of applications
- Chrome vanadium electric steel; forged, oil-hardened

Style 3

long, round jaws; smooth gripping surfaces

Product Number	←→ inch	←→ mm		Style	Pliers	Handles	L3 inch	W3 inch	T1 inch	Dim W4 inch	nensior T2 inch	is L3 mm	W3 mm	T1 mm	W4 mm	T2 mm	∆ ∆ Ounces
30 16 160	6 1/4	160	8 <u>A</u> 1000 V	1	chrome plated	insulated with multi-component grips, VDE-tested	1 3/32	21/32	3/8	1/8	3/32	50.0	16.5	9.5	3.0	2.5	5.3
30 36 160	6 1/4	160	8 <u>♣</u> 1000 V	3	chrome plated	insulated with multi-component grips, VDE-tested	1 19/32	21/32	3/8	13/64	3/32	41.0	16.5	9.5	5.0	2.5	5.0

Snipe Nose Side Cutting Pliers

(radio pliers)

ISO 5745 IEC 60900 ASTM F1505



- suitable for fine gripping and cutting work pointed, half-round jaws
- serrated gripping surfaces
- with cutting edges for soft, medium and hard wire
- cutting edges additionally induction hardened, cutting edge hardness approx. 61 HRC
- Vanadium electric steel; forged, oil-hardened

25 08 160 S	BA
<u></u> ★ 1000 V	♠ 8 □

Product Number	←→ inch		Pliers	Head	Handles	Cutting Ø inch	capacities Ø inch	L3 inch	Dii W3 inch	mensions T1 inch	W4 inch	T2 inch	∆ ∆ Ounces
25 08 160 SBA	6 1/4	£1000 V △ 8	black atramentized	polished	insulated with multi-component grips, VDE-tested	3/32	1/16	1 31/32	21/32	23/64	1/8	3/32	5.1
Product Number	←→ mm		Pliers	Head	Handles	Cutting © Ø mm	capacities	L3 mm	Di W3 mm	mension: T1 mm	s W4 mm	T2 mm	∆ Ounces



Snipe Nose Side Cutting Pliers

(stork beak pliers)

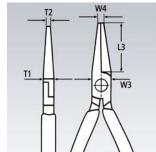
ISO 5745 IEC 60900 ASTM F1505

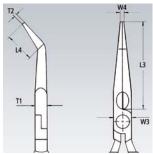
Elastic tips: stable even when twisted

- resilient precision tips snap back into place even after being twisted half-round, long, pointed jaws
- with additionally hardened cutting edges (hardness approx. 61 HRC) for soft, medium hard and hard wire
- Vanadium electric steel; forged, oil-hardened









Product Number	←→ inch		Pliers	Head	Handles	Cutting of Outling of Outling Outline	apacities Ø inch	L3 inch	L4 inch	Dimer T1 inch	nsions W3 inch	W4 inch	T2 inch	∆ Ounces
26 18 200 SBA	8	≙ 1000 V △€	black atramentized	polished	insulated with multi-com- ponent grips, VDE-tested	1/8	3/32	2 7/8		3/8	11/16	1/8	3/32	6.0
26 28 200 SBA	8	<u>√40°</u> <u>№</u> 1000 V	black atramentized	polished	insulated with multi-com- ponent grips, VDE-tested	1/8	3/32	2 7/8	29/32	3/8	11/16	1/8	3/32	6.0
Product Number	←→ mm		Pliers	Head	Handles	Cutting of Output	apacities Ø mm	L3 mm	L4 mm	Dimer T1 mm	nsions W3 mm	W4 mm	T2 mm	ے ا Ounces
26 18 200 SBA	200	<u>A</u> 1000 V <u>A</u>	black	polished	insulated with multi-com-	3.2	2.2	73.0		9.5	17.5	3.0	2.5	6.0
	200		atramentized	polistica	ponent grips, VDE-tested	3.2	2.2	75.0		5.5	17.5	5.0	2.3	0.0

Diagonal Cutters

ISO 5749 IEC 60900 ASTM F1505



70 08 160 SBA **☆1000V △**



70 08 180 SBA **☆1000V △△←**

• the essential cutting tool for versatile use

• high quality material and precise workmanship for long service life

precision cutting edges (cutting edge hardness approx. 62 HRC) for soft and hard wire

clean cutting of thin copper wires, also at the cutting edge tips

• narrow head style for use in confined areas

■ Vanadium electric steel; forged, oil-hardened



Slim head style and precise cut at blade tips: Advantageous when working in confined





Product Number	←→ inch	←→ mm		Pliers	Head	Handles	Ø inch		Cutting c Ø inch			Ø mm	۵۵ Ounces
70 08 160 SBA	6 1/4	160	<u>A</u> 1000 V	black	polished	insulated with multi-component	5/32	7/64	5/64	4.0	2.8	2.0	6.0
70 08 180 SBA	7 1/4	180		atramentized	polistied	grips, VDE-tested	5/32	1/8	3/32	4.0	3.0	2.5	7.1

High Leverage Diagonal Cutters

ISO 5749 IEC 60900 ASTM F1505



74 08 200 SBA **☆1000V △**



74 08 250 SBA **☆1000V △△** 20% reduction in required force compared to conventional diagonal cutters of the same length. With forged-on joint axle.



- for very tough, continuous use
- high cutting performance with minimum effort due to optimum coordination of the cutting edge angle, transmission ratio and ergonomic handle shape
- precision cutting edges (cutting edge hardness approx. 64 HRC) cut several types of wire including piano wire
- Chrome vanadium heavy duty steel; forged, oil-hardened

										Cutting c	apacities			
Product Number	←→	←→		Style	Pliers	Head	Handles			0			0	Δ'Δ
Number	inch	mm						Ø inch	Ø inch	Ø inch	Ø mm	Ø mm	Ø mm	Ounces
74 08 200 SBA	8	200	↑ 1000 V	0	black	nalishad	insulated with multi-	11/64	1/8	3/32	4.2	3.0	2.5	10.7
74 08 250 SBA	10	250	△ €	U	atramentized	polished	component grips, VDE-tested	3/16	9/64	1/8	4.6	3.5	3.0	15.4

KNIPEX X-Cut

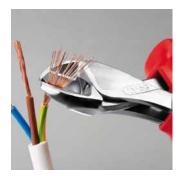
ISO 5749 IEC 60900 ASTM F1505



- box-joint design: highest stability at low weight
- dual supported joint axis for heavy duty cutting
- high cutting capacity with very little effort due to the optimum coordination of cutting edge angle and lever ratio with off center pivot point
- 40% less effort required compared to diagonal cutters of the same length
- large opening width for thicker cables
- cuts all wires precisely, even fine copper wires
- compact, low weight construction
- universally usable in assembly, maintenance and production
- Chrome vanadium heavy duty steel; forged, oil-hardened









Product Number	nber inch 06 160 6 1/4 ≜1000		Pliers	Handles	Ø inch	● Ø inch	Ø inch	O Ø inch	Ø inch	∆¹∆ Ounces
73 06 160	6 1/4	<u>A</u> 1000 V <u>A</u> ■	chrome plated	insulated with multi-component grips, VDE-tested	3/16	5/32	7/64	3/32	30/64	6.9
Product Number			Pliers	Handles	Ø mm	Ø mm	Ø mm	O Ø mm	Ø mm	∆¹∆ Ounces
73 06 160	160	≙ 1000 V △←	chrome plated	insulated with multi-component grips, VDE-tested	4.8	3.8	2.7	2.2	12.0	6.9



Pliers Wrench



- replaces a full set of inch and metric open end wrenches
- adjustable tightening tool
- excellent for gripping, holding, pressing and bending applications
- smooth jaws for careful installation of plated fittings
- will not round off nuts and bolts and won't damage chrome and other soft finishes
- parallel jaws allow infinitely variable gripping of all widths to the specified maximum size
- reliable catching of the hinge bolt: no unintentional shifting
- the action of the jaws allows bolted connections to be tightened and released quickly using the ratchet principle
- lever transmission greater than 10 1 for strong gripping power
- Chrome vanadium electric steel; forged, oil-hardened

											Dimen	sions			
Product Number	←→ inch	←→ mm		Pliers	Handles	inch	mm	Adjustment positions	B1 inch	B2 inch	B3 inch	B1 mm	B2 mm	B3 mm	Ounces
86 07 250 SBA	10	250	<u>A</u> 1000 V	chrome plated	with dipped insulation grips, VDE-tested	1 3/4	46	17	5/16	5/16	35/64	8.0	8.0	14.0	21.7



KNIPEX Cobra® VDE

Hightech Water Pump Pliers

ISO 5749 IEC 60900 ASTM F1505



87 28 250 SBA ☆ 1000 V 🏤 🚭 👊 🗔 It's easy to achieve the perfect capacity on the KNIPEX Cobra® VDE Pliers. You don't even have to push the button! Simply place the upper gripping jaw of the pliers on the work piece and slide the upper handle forward.

- adjustment by shifting the jaw directly on to the workpiece: fast, reliable and comfortable handle width
- opening at the touch of a button off the workpiece
- fine adjustment for optimum adaptation to different workpiece sizes and a comfortable gripping position
- good access to the workpiece due to slim size in the head and joint area

- self-locking on pipes and nuts: no slipping on the workpiece and low handforce required
- gripping surfaces with special hardened teeth, teeth hardness approx. 61 HRC: low wear and reliable gripping
- box-joint design: high stability because of double guide
- pinch guard prevents operators' fingers being pinched
- Chrome vanadium electric steel; forged, oil-hardened



Quick adjustment to the workpiece without using the push-button, hands stay behind guard



Just push the pliers handle to adjust

Product Number	←→ inch	←→ mm		Pliers	Head	Handles	O] Ø inch		inch	⊜	Adjustment positions	∆ Ounces
87 28 250 SBA	10	250	≙1000V △€	grey atramentized	polished	insulated with multi-component grips, VDE-tested	2	50.0	1 3/4	46.0	24	12.0

88

KNIPEX Alligator® Water Pump Pliers

ISO 5749 IEC 60900 ASTM F1505





- box-joint design: high stability because of double guide
- self-locking on pipes and nuts: no slipping on the workpiece and low handforce required
- pinch guard prevents operators' fingers from being pinched
- favorable lever action: optimum transmission of force
- gripping surfaces with special hardened teeth, teeth hardness approx. 61 HRC: low wear and reliable gripping
- Chrome vanadium electric steel, forged, oil-hardened



Product Number	←→ inch	←→ mm		Pliers	Head	Handles	O∄ Ø inch	◯ <u></u> ;	OJ ømm	⊜‡ mm	Adjustment positions	∆ Ounces
88 08 250 SBA	10	250	≜1000V ≜€	black atramentized	polished	insulated with multi- component grips, VDE-tested	2	1 3/4	50.0	46.0	9	13.7



Cable Shears

IEC 60900 ASTM F1505



- insulated and tested according to IEC 60900 / ASTM F 1505
- not suitable for ACSR, steel wire and hard drawn copper conductors
- precision ground, hardened blades
- no crushing, only slight deformation of the cable
- with pinch guard and slip guard
- adjustable bolted joint
- shears body: Surgical steel; stainless, air-hardened
- handles: plastic, impact-resistant

95 06 230

for copper conductors single wire up to 16 mm², multiple wire up to 1/0 AWG, fine-stranded up to 70 mm² and aluminium conductors multiple wire up to 70 mm²; easy cutting with one handed operation due to high transmission ratio; stainless — surgical steel, oil-hardened and tempered

							tting capacit			
Product	←→	←→		Head	Handles			₩	AWG	$\nabla_{\overline{\Delta}}$
Number	inch	mm				Ø inch	Ø mm	mm²		Ounces
95 06 230	9 1/4	230	≙ 1000 V △♦ ♦ 9	polished	plastic insulated, VDE-tested	5/8	16.0	50	1/0	9.7



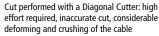
Cable Shears



- for cutting copper and aluminium cables, single and multiple wire
- not suitable for ACSR, steel wire and hard drawn copper conductors
- precision ground, hardened blades
- clean and smooth cut without crushing and deformation
- easy cutting with one handed operation
- with pinch-guard and slip-guard
- adjustable bolted joint, self-locking screw
- High-grade special tool steel, forged, oil-hardened









Cut effected with a Cable Shear: easy, clean cut without any deformation of the cable

Product Number	←→ inch	←→ mm		Style	Tool	Handles	Cutti Ø Ø inch	ng capac Ø Ø mm	₩	AWG	∆ Ounces
95 18 165 SBA	6 1/4	165	♦ 9 3 6 1000 V 6 6	1	burnished	insulated with multi-component grips, VDE-tested	19/32	15.0	50	1/0	8.8



Cable Shears with twin cutting edge

IEC 60900 ASTM F1505





Initial cut: Using the front cutting edge to cut the insulating sheath on larger cable diameters leaves an ergonomic handle opening width.

- for cutting copper and aluminium cables
- not suitable for ACSR, steel wire and hard drawn copper conductors
- precision ground, hardened blades
- clean and smooth cut without crushing and deformation
- by dividing the cutting actions into initial cut (insulating sheath in the front cutting area) and final cut (conductor in the back cutting area), cables up to Ø 51/64" can be cut in one handed operation
- less effort required due to favorable lever ratio and optimized cutting edge geometry
- with pinch guard and slip guard
- adjustable screw joint, self-locking
- High-grade special tool steel; forged, oil-hardened



Final cut: After cutting the sheath in the front profile, the cut is finished through the metal part of the cable in the rear profile. Initial cut in the front profile, final cut in the rear profile – to keep it as easy as possible.

Product Number	←→ inch	4→ mm		Tool	Handles	Cut Ø Ø inch	ting capaci Ø Ø mm	ties mm²	AWG	ے Ounces
95 18 200 SBA	8	200	⊕ € 6 1000 V △€	burnished	insulated with multi-component grips, VDE-tested	51/64	20.0	70	2/0	12.0



Cable Shears



- for cutting copper and aluminium cables, single and multiple wire
- not suitable for ACSR, steel wire and wire ropes
- precision ground, hardened blades
- clean and smooth cut without crushing and deformation
- low handforce required due to favorable lever ratio and new blade geometry
- short design, length only 20"
- low weight
- with pinch guard
- adjustable bolted joint
- cutter head: Vanadium electric steel; forged, oil-hardened
- handle shank: aluminium tube, high-strength



Large cutting capacity: max. 1" dia./150 mm²

						Cu	itting capaciti	es		
Product	←→	←→		Head	Handles	₩			AWG	47
Number	inch	mm				Ø inch	Ø mm	mm²		Ounces
95 17 500	20	500	☆1000 V △←→ ↑	polished	plastic dipped insulated, VDE-tested	1	27.0	150	5/0	52.1

Cable Cutters ratchet action

(PATENTED)

IEC 60900 ASTM F1505



- for cutting copper and aluminium cables, single and multiple wire
- not suitable for ACSR, steel wire and wire ropes
- precision ground, hardened blades
- clean and smooth cut without crushing and deformation
- one handed operation using ratchet principle
- little handforce required due to very high transmission ratio
- two-stage ratchet drive for easy cutting
- simple handling as a result of light weight and compact design can be used even in confined areas
- with pinch guard and slip guard
- High-grade special tool steel; forged, oil-hardened

95 36 280

suitable for aluminium sector cable up to 4 x 300 MCM (4 x 150 mm²)

Product Number	←→ inch	←→ mm		Tool	Handles	Cut Ø Ø inch	ting capaci �� Ø mm	ties mm²	МСМ	۵۵ Ounces
95 36 250	10	250	<u>≙</u> 1000 V <u>@</u>	black lacquered	insulated with multi-component grips, VDE-tested	1 1/4	32.0	240	500	23.0
95 36 280	11	280	<u>≙</u> 1000 V <u>@</u> € ♥ MM £ €	black lacquered	insulated with multi-component grips, VDE-tested	2	52.0	380	750	29.5
95 39 280	280 Movable spare blade for 95 31 280 / 95 36 280									



Cable Cutters (ratchet action)

Sturdy. Easy to use. Stable. Innovative ratchet-drive. For cable up to 2 23/64 in diameter.



95 36 320 ★ 1000 V ♠♠ ↔ MM ► ■

- easy handling due to low weight (28.2 oz.) and compact construction (12 1/2" length) – usable in confined areas also
- cutting through copper and aluminium cables with diameters of up to 2 23/64 in (60 mm) in one handed and two handed
- hardened cutting edges, precisely ground, cut smoothly and neatly without crushing
- for cutting copper and aluminium single conductors as well as multiple stranded cables
- not suitable for cutting ACSR, steel wire and wire ropes
- innovative three-stage ratchet-drive with high leverage for easy cutting in one-hand and two-hand operation
- with one handed and two handed
- fixed handle with support area for putting down the pliers when cutting
- High-grade special tool steel, forged, oil-hardened





Product Number	←→ inch	←→ mm		Tool	Handles	Cutt Ø Ø inch	ting capaci Ø mm	ties mm²	МСМ	∆ Ounces
95 36 320	12 1/2	320	≙1000 V @ → MM € 5	black atramentized	insulated with multi-component grips, VDE-tested	2 23/64	60.0	600	1200	28.2
95 39 280		Mova	ble spare blade for 95 31 280 /	95 36 280						



Wire Rope and Cable Cutter

IEC 60900 ASTM F1505



- for ACSR, wire ropes and steel rods, copper and aluminium
- angular cutting blades prevent fanning out
- optimum transmission ratio for high cutting performance
- bolted cutter head; replaceable
- lightweight
- cutter head: High-grade special tool steel; oil-hardened
- handles: Aluminium, high-strength, drop forged



Product Number	←→ inch		Head	Handles	Cutt inch	ing capacit Ø Ø inch	ies ① Ø inch	AWG	∆ Óunces	
95 77 600	23 1/2	≙ 1000 V ♀ ◎ ₽ ⑤	polished	plastic dipped insulated	5 29/32	35/64	23/64	5/0	83.2	

Product Number	∢-→ mm		Head	Handles	₩ mm²	Ø mm	● Ø mm	AWG	∆ ∆ Ounces
95 77 600	600	☆1000∨ �� ◎ ▮ ▮	polished	plastic dipped insulated	150	14.0	9.0	5/0	83.2
05 70 600	.	1 16 05 77 600							

95 79 600 Spare cutter head for 95 77 600



Crimping Pliers for end sleeves (ferrules)



- for crimping wire end ferrules in an area of application from 13 - 23 AWG (0.25 up to 2.5 mm²)
- crimping in marked trapezoidal dies for tight connections between the sleeve and the conductor
- Vanadium electric steel; forged, oil-hardened

Product Number	←→ inch	←→ mm		Head	Handles		Capacity mm ²	AWG	Number of crimping positions	∆ ∆ Ounces
97 68 145 A	5 3/4	145	<u></u> 1000 V	polished	insulated with multi-component grips, VDE-tested		0.25 - 2.5	13 - 23	6	6.2



Open End Wrenches

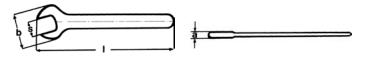
IEC 60900 ASTM F1505



- jaw 15° angled
 basic tool chrome plated
 Chrome vanadium steel; forged, oil-hardened



☆1000V ○



Product Number		Width across flats S inch	Length I max. inch	Head width b max. inch	Head thickness a max. inch	∆ Ounces
98 00 7/16"	<u> </u>	7/16	4 3/4	1 3/16	23/64	1.9
98 00 1 1/16"		1 1/16	8 1/2	2 1/2	23/64	14.1



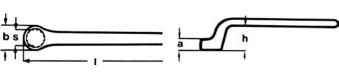
Box Wrenches

IEC 60900 ASTM F1505

☆1000V ○



- cranked
- basic tool chrome platedChrome vanadium steel; forged, oil-hardened



Product Number		Width across flats S inch	Length inch	l max.	Head wic inch	th b max. mm	Head thickr inch	ness a max. mm	44
Number									Ounces
98 01 1 1/16"		1 1/16	10 7/16	265.0	1 1/2	38.0	5/8	16.0	14.1
98 01 1/2"		1/2	7 9/32	185.0	55/64	21.5	7/16	11.0	6.0
98 01 1/16"		1 1/16	8 5/64	205.0	1 1/16	27.0	1/2	13.0	7.1
98 01 3/4"		3/4	8 55/64	225.0	1 3/16	30.0	35/64	14.0	8.7
98 01 3/8"	≙ 1000 ♥	3/8	6 19/64	160.0	43/64	17.0	23/64	9.0	3.5
98 01 5/16"	₹ 1000 V	5/16	6 7/64	155.0	35/64	14.0	9/32	7.0	2.5
98 01 5/8"		5/8	7 7/8	200.0	1 1/64	26.0	15/32	12.0	6.8
98 01 7/16"		7/16	6 1/2	165.0	47/64	18.5	25/64	10.0	4.2
98 01 7/8"		7/8	8 55/64	225.0	1 3/8	35.0	19/32	15.0	10.9
98 01 9/16"		9/16	7 11/16	195.0	29/32	23.0	15/32	12.0	3.6

Nut Drivers with screwdriver handle

IEC 60900 ASTM F1505

≙1000 V **△△△ ○**



- ergonomically optimized dual component handle for fatigue-reduced work and optimum transmission of force
- handle design prevents rollingChrome vanadium molybdenum steel



Product Number	←→ inch		tip	Handle	Width across flats S inch	Blade length inch	Handle length inch	Head dia. inch	∆ ∆ Ounces
98 03 04	9 1/4			insulating multi-component handle,	5/32	5	4 7/32	23/64	2.5
98 03 05	9 1/4	≙ 1000 V △ ← ○	hurnishad		13/64	5	4 7/32	25/64	2.5
98 03 08	9 1/4	₹ 1000 V @ G	burnished	VDE-tested	5/16	5	4 13/32	19/32	4.4
98 03 10	9 1/4				25/64	5	4 13/32	43/64	4.2

Product Number	←→ mm		tip	Handle	Width across flats S mm	Blade length mm	Handle length mm	Head dia. mm	∆ d Ounces
98 03 04	230	≙ 1000 V △ ← ○		insulating multi-component handle,	4.0	125.0	107.0	9.0	2.5
98 03 05	230		burnished		5.0	125.0	107.0	10.0	2.5
98 03 08	237			VDE-tested	8.0	125.0	112.0	15.0	4.4
98 03 10	237				10.0	125.0	112.0	17.0	4.2







■ Special tool steel; oil-hardened





Product Number	←→ inch		Width across flats S inch	Handle length max. inch	Head dia. inch	∆ Ounces
98 04 08	8		5/16	3 35/64	19/32	12.1
98 04 17	8	≙ 1000 V △ ♠ ○	43/64	6 7/64	1 1/8	15.0
98 04 19	8		3/4	6 7/64	1 7/32	18.5
98 05 13	12		33/64	6 7/64	15/16	14.4
98 05 17	12	<u>A</u> 1000 V △ ← ○	43/64	6 7/64	1 1/8	19.2
98 05 19	12		3/4	6 7/64	1 7/32	23.8

Product Number	←→ mm		Width across flats S mm	Handle length max. mm	Head dia. mm	ے Ounces
98 04 08	200		8.0	90.0	15.0	12.1
98 04 17	200	≙ 1000 V △ ← ○	17.0	155.0	28.5	15.0
98 04 19	200		19.0	155.0	31.0	18.5
98 05 13	300		13.0	155.0	23.5	14.4
98 05 17	300	≙ 1000 V △ ← ○	17.0	155.0	28.5	19.2
98 05 19	300		19.0	155.0	31.0	23.8



Adjustable Wrench

IEC 60900



- parallel smooth gripping jaws
- variable gripping width
- with scaling for pre-setting the width apart from the workpiece
- with slip guard
- Chrome vanadium steel



Product Number	←→ inch		Tool	Handle	inch	Jaw width inch	Head width inch	Width inch	Depth inch	∆ ∆ Ounces
98 07 250	10	≙ 1000 V	chrome plated	plastic dipped insulated	1 3/16	5/16	5/8	2 7/8	51/64	17.6
Product	←→		Tool	Handle		Jaw width			Depth mm	△△
Number	mm				mm	mm	mm	mm	111111	Ounces
98 07 250	260	<u></u> 1000 V <u>√22° </u> O	chrome plated	plastic dipped insulated	30	8.0	16.0	73.0	20.0	17.6



Screwdrivers for

hexagon socket screws with T-handle



■ Special tool steel; oil-hardened



Product Number	←→ inch		Width across flats S inch	Length of non-insulated blade \pm 5/64 inch	T-Handle length inch	۵۵ Ounces
98 14 05	4 3/4		13/64	23/64	3 35/64	7.8
98 14 06	4 3/4	<u></u> ★ 1000 V ○	15/64	25/64	3 35/64	7.3
98 14 08	4 3/4		5/16	7/16	3 35/64	10.1
98 15 05	10		13/64	23/64	3 35/64	12.8
98 15 06	10	≙ 1000 ∨ ○	15/64	25/64	3 35/64	15.9
98 15 08	10		5/16	7/16	3 35/64	12.7

Product Number	←→ inch		Width across flats S mm	Length of non-insulated blade ± 2 mm	T-Handle length mm	∆ Ounces
98 14 05	120		5.0	9.0	90.0	7.8
98 14 06	120	≙ 1000 ∨ ○	6.0	10.0	90.0	7.3
98 14 08	120		8.0	11.0	90.0	10.1
98 15 05	250		5.0	9.0	90.0	12.8
98 15 06	250	≙ 1000 V ○	6.0	10.0	90.0	15.9
98 15 08	250		8.0	11.0	90.0	12.7

T-handle with driving square 3/8" or 1/2"

IEC 60900 ASTM F1505



- for use with sockets
- quick, easy and reliable locking of attached sockets
- chrome plated
- High-grade special tool steel; forged, oil-hardened

Product Number	←→ inch	←→ mm		Handle inch	length mm	Square drive inch	∆∆ Ounces
98 30	8	200	<u></u> ★ 1000 V 🌃	6 1/2	165	3/8	15.8
98 40	8	200	☆1000 V	6 1/2	165	1/2	22.3

Reversible Ratchets

with driving square 3/8" or 1/2"

IEC 60900 ASTM F1505



98 31 **☆1000V %**

- for use with sockets
- reversible for clockwise and counter-clockwise directions
- extremely smooth action
- quick, easy and reliable locking of attached sockets
- Chrome vanadium steel; forged

Product Number	←→ inch	←→ mm		Square drive Inch	۵۵ Ounces
98 31	7 1/2	190	≙ 1000 V 🔏	3/8	11.4
98 41	10 1/2	265	☆1000 V	1/2	22.0

Extension Bars

with male and female driving square 3/8" or 1/2"

IEC 60900 ASTM F1505



98 35 125

会1000∨ 猸 ⑱



98 45 250 **☆**1000 V **½ ½**

- for use with sockets • with internal and external square
- quick, easy and reliable locking of attached sockets
- Chrome vanadium steel; forged

Product Number	←→ inch	←→ mm		Square drive inch	∆ ∆ Ounces
98 35 125	5	125	À 1000 V 🜃 🔞	3/8	5.3
98 35 250	10	250	X 1000 V № ®	3/8	10.4
98 45 125	5	125	∆ 1000 V IV €	1/2	9.1
98 45 250	10	250	<u>A</u> 1000 V Ø Ø	1/2	17.3

Hexagon sockets for hexagon screws

driving square 3/8" or 1/2"

- for metric and imperial hexagonal head screwschrome platedChrome vanadium steel





98 37 17 **☆1000V ◇ ③**

		Width across	flats S	Diameter of effecti	ve tool side d max.	Square drive	
Product Number		inch	mm	inch	mm	inch	∆∆ Ounces
98 37 10		25/64	10.0	47/64	18.7	3/8	1.1
98 37 11		7/16	11.0	51/64	20.0	3/8	1.1
98 37 12		15/32	12.0	53/64	21.2	3/8	1.2
98 37 13		1/2	13.0	57/64	22.5	3/8	1.2
98 37 14		35/64	14.0	15/16	23.7	3/8	1.4
98 37 16		5/8	16.0	1 1/32	26.2	3/8	1.9
98 37 17		43/64	17.0	1 5/64	27.5	3/8	2.2
98 37 19	A 1000 V 🔿 🙉	3/4	19.0	1 3/16	30.0	3/8	2.6
98 37 5/16"	<u>A</u> 1000 V ○ 🚳	5/16		41/64	16.2	3/8	1.1
98 37 3/8"		3/8		47/64	18.7	3/8	1.1
98 37 7/16"		7/16		51/64	20.0	3/8	1.1
98 37 1/2"		1/2		57/64	22.5	3/8	1.2
98 37 9/16"		9/16		15/16	23.7	3/8	1.4
98 37 5/8"		5/8		1 1/32	26.2	3/8	1.8
98 37 3/4"		3/4		1 3/16	30.0	3/8	2.5
98 37 1/4"		1/4		37/64	14.7	3/8	1.1
98 47 10		25/64	10.0	49/64	19.5	1/2	2.2
98 47 11		7/16	11.0	13/16	20.7	1/2	2.2
98 47 12		15/32	12.0	29/32	23.0	1/2	2.3
98 47 13		1/2	13.0	29/32	23.2	1/2	2.3
98 47 14		35/64	14.0	31/32	24.5	1/2	2.4
98 47 16		5/8	16.0	1 1/16	26.9	1/2	2.4
98 47 17		43/64	17.0	1 7/64	28.2	1/2	2.6
98 47 18		23/32	18.0	1 9/64	29.0	1/2	2.9
98 47 19		3/4	19.0	1 7/32	30.7	1/2	3.5
98 47 22	<u>A</u> 1000 V ○ ③	55/64	22.0	1 23/64	34.5	1/2	4.4
98 47 24		15/16	24.0	1 29/64	37.0	1/2	5.3
98 47 27		1 1/16	27.0	1 39/64	41.0	1/2	6.5
98 47 1/2"		1/2		29/32	23.2	1/2	2.4
98 47 9/16"		9/16		31/32	24.5	1/2	2.3
98 47 5/8"		5/8		1 1/16	26.9	1/2	2.5
98 47 11/16"		11/16		1 7/64	28.2	1/2	3.1
98 47 3/4"		3/4		1 7/32	30.7	1/2	3.4
98 47 7/8"		7/8		1 23/64	34.5	1/2	4.4
98 47 1"		1		0 00/00	41.0	1/2	167

Hexagon Sockets for socket screws

with driving square 3/8" or 1/2"

IEC 60900 ASTM F1505

- for metric socket head screws
- chrome plated
- Special tool steel





98 39 06 **☆** 1000 V **○ ③**

98 49 08

Product Number	←→ inch	←→ mm		Width acr inch	oss flats S mm	Length of no ± 5/64 inch	on-insulated blade ± 2 mm	Square drive inch	۵۵ Ounces
98 39 05	3	75	A 1000 V A @	13/64	5.0	23/64	9.0	3/8	2.1
98 39 06	3	75	≙ 1000 V ○ ⑤	1/4	6.0	25/64	10.0	3/8	2.0
98 49 05	3	75		13/64	5.0	23/64	9.0	1/2	2.4
98 49 06	3	75	A 1000 V ♠ ®	1//	6.0	25/6/	10.0	1/2	2.5

7/16

8.0



Reversible Ratchet with driving square 1/2"

5/16

IEC 60900 ASTM F1505



<u>A</u>1000 V ½

• reversible for clockwise and counter-clockwise directions

1/2

• very reliable coupling of sockets with bolt-activated locking system

3.1

■ Chrome vanadium steel

11.0

Product Number	←→ inch	←→ mm		Square drive inch	∆ ∆ Ounces
98 42	10 1/2	265	☆ 1000 V	1/2	21.1



Torque Wrench

with driving square 3/8" or 1/2", reversible



98 43 50 会 1000 V **½**

- reversible for tightening of left handed threads
- lockable torque adjustment
- very reliable coupling of sockets with bolt-activated locking system
- transparent insulated scale range
- calibration certificate included
- Chrome vanadium steel



Transparent insulated scale range

Product Number	←→ inch	←→ mm		Range of Application	Square drive inch	ے Ounces
98 33 25	11 1/2	290	☆ 1000 V ¾	5 - 25 Nm	3/8	43.4
98 33 50	15	385	<u>₩</u> 1000 V 🔀	5 - 50 Nm	3/8	43.4
98 43 50	15	385	<u>A</u> 1000 V ✓	5 - 50 Nm	1/2	43.4

Cable Knives

IEC 60900 ASTM F1505



- ergonomically improved handle shape with comfortable slip guard
- strong grip thanks to slip-proof soft components
- thumb recess and "finger hook" at the end of the handle ensure a good transmission of force when the blade is pulled
- solid, fixed straight blade
- transparent protective cap
- blade: Special tool steel; oil-hardened

98 54

back of the blade is plastic coated to avoid short circuits

Product Number	←→ inch	←→ mm		Handle	Blade lo inch	ength mm	∆ ∆ Ounces
98 52	7 1/4	180	<u>A</u> 1000 V △	insulating multi-component handle, VDE-tested	1 31/32	50.0	2.4
98 54	7 1/4	180	☆ 1000 V △	insulating multi-component handle, VDE-tested	1 31/32	50.0	2.4

98 5

98 54

☆1000V △★⑤

Dismantling Knives

IEC 60900 ASTM F1505



- ergonomically improved handle shape with comfortable slip guard
- strong grip thanks to slip-proof soft components
- thumb recess and "finger hook" at the end of the handle ensure a good transmission of force when the blade is pulled
- transparent protective cap

98 53 03

solid, fixed hook blade; suitable for round cables; blade: special tool steel; oil-hardened

98 53 13

narrow, fixed hook blade, sickle-shaped; suitable for sector cables; blade: special tool steel; oil-hardened

98 55

solid, fixed hook blade, sickle shaped; with guide shoe at the blade point; no damage of the conductor insulation; blade: surgical steel; stainless, air-hardened

98 55 **☆** 1000 V **△△**

Product Number	←→ inch	←→ mm		Handle	Blade l inch	ength mm	Ra inch	dius mm	∆ Ounces
98 53 03	6	155	≙ 1000 V △	insulating multi-component handle, VDE-tested	1 7/64	28.0	9/32	7.0	2.3
98 53 13	7 1/4	180	☆ 1000 V △	insulating multi-component handle, VDE-tested	1 31/32	50.0	1 37/64	40.0	2.3
98 55	6	155	<u>A</u> 1000 V △	insulating multi-component handle, VDE-tested	1 1/2	38.0	59/64	23.5	2.4



Cable Knife



- straight blade with special grinding; replaceable
- with hinged blade guard integrated in the handle; captive
- back of the blade is plastic coated to avoid short circuits
- ergonomically shaped safety handle
- blade: Surgical steel; stainless, air-hardened

Product Number	←→ inch	←→ mm		Blade l	ength mm	∆†∆ Ounces
98 56	7 1/2	185	≙ 1000 V △	1 31/32	50.0	2.3
98 56 09		Spare l	olade for 98 56			



Flat Nose Pliers of plastic insulating

IEC 60900 ASTM F1505



full insulation reduces risk of	short circu	ıits
---------------------------------	-------------	------

- for meter installation and meter blocking
- plastic material, fiberglass-reinforced

Product Number	←→ inch	←→ mm		∆∆ Ounces
98 62 01	7 1/4	180	À 1000 V △ ♣ ■ ■	4.6



Snipe Nose Pliers of plastic insulating

IEC 60900 ASTM F1505



full	insu	lation	rec	luces	risk	of	S	hort	circuit	S

• plastic material, fiberglass-reinforced

98 62 02	
£1000V Æ€ ⊖ 👊	

Product Number	←→ inch	←→ mm		∆∆ Ounces
98 62 02	8 3/4	220	≙ 1000 V △€ ⊖ □□□	4.9



Insulating Clamp



- for holding insulated mats in place
- with integrated spring
- fully insulated to avoid short cicuits
- solid plastic, fiberglass-reinforced

Product Number	←→ inch	←→ mm		Clampin inch	g capacity mm	∆ ∆ Ounces
98 64 02	6	150	⇔1000 V MM	19/32	15	2.2



Plastic Slip-On Caps conical





98 65 02 **≙1000 V**

■ to cover	hare live	cable	ends	(max	25/64"	dia '	١
to cover	Daic live	Capic	CHUS	(IIIIan.	Z 3/ UT	uia.	,

plastic

Product Number	←→ inch	←→ mm		Conductor key	۵۵ Ounces
98 65 01	3	80	⊜ 1000 V	1	0.3
98 65 02	3	80	₿1000 V	2	0.3
98 65 03	3	80	⊜ 1000 V	3	0.3



Self-Clamping Slip-On Caps

DIN VDE 0680-1



98 65 30 **≙1000 V**

- to cover bare live cable ends
- plastic

Product Number	←→ inch	←→ mm		Inside dia. inch	Inside dia. mm	۵۵ Ounces
98 65 10	4 1/4	110	⊜ 1000 V	1 25/64	10.0	1.8
98 65 20	4 1/4	110	₿1000 V	1 51/64	20.0	1.8
98 65 30	4 1/4	110	₿1000 V	1 3/16	30.0	1.8



PUK® Junior Hacksaw

IEC 60900 ASTM F1505



• saw blade for metal and wood with 25 teeth per inch; exchangeable

				Saw blac	le length	
Product Number	←→ inch	←→ mm		inch	mm	∆ ∆ Ounces
98 90	9 1/2	240	<u></u> 1000 V	6	150.0	6.1

Automotive Set 5 parts

IEC 60900 ASTM F1505



• for the Automotive Technician

Product Number			Units		∆ ∆ Ounces
98 98 20 US	Automotive	Set with insulated tools for working on elec	trical ins	stallations	44.8
	74 08 250	10" High Leverage Diagonal Cutter	1	<u>A</u> 1000 V	
	88 08 250	10" Alligator® Water Pump Pliers	1	<u></u> 1000 V	
	53704	Slotted Screwdriver MaxxPro	1	<u>A</u> 1000 V	
	53706	Slotted Screwdriver MaxxPro	1	<u>A</u> 1000 V	
	53712	Phillips Screwdriver MaxxPro	1	<u></u> ★ 1000 V	

Tradesman's Set 5 parts

IEC 60900 ASTM F1505



- for the Journeyman or Apprentice Electrician
- with insulated tools for working on electrical installations

Product Number			Units		∆ ∆ Ounces
98 98 21 U	Tradesman's	s Set with insulated tools for working on	electric	al installations	40.8
	74 08 200	8" High Leverage Diagonal Cutter	1	<u>A</u> 1000 V	
	02 08 225	9" High Leverage Combination Pliers	1	<u></u> ★ 1000 V	
	53705	Slotted Screwdriver MaxxPro	1	<u>A</u> 1000 V	
	53712	Phillips Screwdriver MaxxPro	1	<u>A</u> 1000 V	
	54812	Square Screwdriver MaxxPro	1	<u></u> ★ 1000 V	



High Leverage Trademan's Set 5 parts

98 98 22 US <u></u> ★ 1000 V

- for the Journeyman or Apprentice Electrician
- with insulated tools for working on electrical installations

Product Number			Units		۵۵ Ounces
98 98 22 US	High Leveraginstallations	ge Trademan's Set with insulated tools fo	or workir	ng on electrical	48.0
	74 08 250	10" High Leverage Diagonal Cutter	1	<u></u> ★ 1000 V	
	09 08 240	9 1/4" Lineman's Pliers	1	<u>A</u> 1000 V	
	53705	Slotted Screwdriver MaxxPro	1	<u>A</u> 1000 V	
	53712	Phillips Screwdriver MaxxPro	1	<u></u> ★ 1000 V	
	54812	Square Screwdriver MaxxPro	1	<u></u> ★ 1000 V	



Roll-up pouches with insulated tools 7 parts

IEC 60900 ASTM F1505

Commercial Set



High Leverage Commercial Set



98 98 26 US **☆** 1000 V

Commercial Set, the Si807



98 98 27 US **☆ 1000 V**

- specific assortments to meet the needs of demanding trade professionals
- in a roll-up ballistic material pouch
- for the small to medium-sized electrical contractor who needs to have a set of insulated tools at all times and wants the very best
- with sturdy, adjustable snap closure
- all tools 100% tested and meet ASTM F1505 and IEC 60900 requirements
- Dimensions flat (W x H x D): 23 7/32 x 1 31/32 x 12 19/32"
- Dimensions rolled-up (W x H x D): 4 33/64 x 4 33/64 x 12 19/32"

Product Number			Units		∆ Ounces
98 98 25 US	Roll-up pou	ch "Commercial Set" with insulated tools			64.8
	74 08 200	8" High Leverage Diagonal Cutter	1	<u></u> ★ 1000 V	
	88 08 250	10" Alligator® Water Pump Pliers	1	<u></u> 1000 V	
	26 18 200	8" Long Nose Pliers	1	<u></u> 1000 V	
	02 08 225	9" High Leverage Combination Pliers	1	<u></u> ☆ 1000 V	
	53705	Slotted Screwdriver MaxxPro	1	<u></u> ★ 1000 V	
	53712	Phillips Screwdriver MaxxPro	1	<u></u> ★ 1000 V	
	54812	Square Screwdriver MaxxPro	1	<u></u> 1000 V	

Product Number			Units		۵۵ Ounces
98 98 26 US	Roll-up pou	ch "High Leverage Commercial Set" with insu	ulated to	ools	71.2
	09 08 240	9 1/4" Lineman's Pliers	1	<u></u> 1000 V	
	26 18 200	8" Long Nose Pliers	1	<u></u> ★ 1000 V	
	88 08 250	10" Alligator® Water Pump	1	<u></u> 1000 V	
	74 08 250	10" High Leverage Diagonal Cutter	1	<u></u> 1000 V	
	53705	Slotted Screwdriver MaxxPro	1	<u></u> 1000 V	
	53712	Phillips Screwdriver MaxxPro	1	<u></u> ★ 1000 V	
	54812	Square Screwdriver MaxxPro	1	<u></u> 1000 V	

Product Number			Units		ے ک Ounces
98 98 27 US	Roll-up pou	ch "Commercial Set", the Si807 with insulate	ed tools		64.0
	26 18 200	8" Long Nose Pliers	1		
	74 08 200	8" High Leverage Diagonal Cutter	1		
	02 08 225	9" High Leverage Combination Pliers	1		
	88 08 250	10" Alligator® Water Pump Pliers	1		
	53704	Slotted Screwdriver, MaxxPro	1	<u></u> ★ 1000 V	
	53706	Slotted Screwdriver MaxxPro	1	<u></u> 1000 V	
	53712	Phillips Screwdriver MaxxPro	1	<u></u> 1000 V	

Compact Tool Cases with insulated tools 10 parts

IEC 60900 ASTM F1505



- specific assortments to meet the needs of demanding trade professionals
- all tools 100% tested and meet ASTM F1505 and IEC 60900 requirements
- high quality, versatile, shock-resistant plastic case
- foam insert with honeycomb structure for variable equipment
- Dimensions exterior (W x H x D): 17 1/8 x 3 15/16 x 12 25/64" Dimensions interior (W x H x D): 16 19/64 x 3 5/32 x 11 39/64"

Industrial Set for the industrial electrician

Product Number			Units		∆ Ounces
98 98 30 US	Compact To	ol Case "Industrial Set" with insulated tool	S		104.0
	02 08 225	9" High Leverage Combination Pliers	1	<u></u> 1000 V	
	74 08 200	8" High Leverage Diagonal Cutter	1	<u></u> 1000 V	
	95 18 165	6 1/2" Cable Shears	1	<u></u> 1000 V	
	26 18 200	8" Long Nose Pliers	1	<u></u> ★ 1000 V	
	88 08 250	10" Alligator® Water Pump Pliers	1	<u></u> 1000 V	
	53704	Slotted Screwdriver MaxxPro	1	<u></u> 1000 V	
	53706	Slotted Screwdriver MaxxPro	1	<u></u> 1000 V	
	53711	Phillips Screwdriver MaxxPro	1	<u></u> 1000 V	
	53712	Phillips Screwdriver MaxxPro	1	<u></u> 1000 V	
	54812	Square Screwdriver MaxxPro	1	<u></u> 1000 V	



High Leverage Industrial Set for the industrial electrician

Product Number			Units		∆ ∆ Ounces
98 98 31 US	Compact Too	ol Case "High Leverage Industrial Set" with	insulate	ed tools	112.0
	74 08 250	10" High Leverage Diagonal Cutter	1	<u></u> ★ 1000 V	
	95 18 165	6 1/2" Cable Shears	1	<u></u> 1000 V	
	09 08 240	9 1/4" Lineman's Pliers	1	<u></u> 1000 V	
	26 18 200	8" Long Nose Pliers	1	<u></u> 1000 V	
	88 08 250	10" Alligator® Water Pump Pliers	1	<u></u> 1000 V	
	53704	Slotted Screwdriver MaxxPro	1	<u></u> 1000 V	
	53706	Slotted Screwdriver MaxxPro	1	<u></u> 1000 V	
	53711	Phillips Screwdriver MaxxPro	1	<u></u> 1000 V	
	53712	Phillips Screwdriver MaxxPro	1	<u></u> 1000 V	
	54812	Square Screwdriver MaxxPro	1	<u></u> 1000 V	



Safety compact tool case 10 parts

IEC 60900 ASTM F1505

■ shock-resistant plastic case

Product

- foam insert with precise recesses for holding the pliers
- equipped with a range of custom insulated KNIPEX tools for work on electrical installations
- all tools 100% tested and meet ASTM F1505 and IEC 60900 requirements
- Dimensions exterior (W x H x D): 14 31/32 x 3 11/32 x 10 15/64"

Units

 $\Delta \Delta$

■ Dimensions interior (W x H x D): 13 3/16 x 2 3/4 x 9 3/64"



0 0

Number **Ounces** 98 99 11 S3 Safety compact tool case with insulated tools (3/8") 115.2 for working on electrical installations 98 31 Reversible Ratchet <u></u> 1000 V Extension Bar 98 35 125 <u></u> 1000 V 98 35 250 Extension Bar **☆1000V** 98 37 1/2" Hexagon socket for hexagonal screws **☆ 1000 V** 98 37 3/4" Hexagon socket for hexagonal screws <u></u> 1000 V 98 37 3/8" Hexagon socket for hexagonal screws <u></u> 1000 V 98 37 5/16" Hexagon socket for hexagonal screws <u></u> 1000 V 98 37 5/8" Hexagon socket for hexagonal screws <u></u> 1000 V 98 37 7/16" Hexagon socket for hexagonal screws **☆ 1000 V** 98 37 9/16" Hexagon socket for hexagonal screws <u></u> 1000 V

98 99 11 S3 **☆ 1000 V**



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Product Number			Units		∆∆ Ounces
98 99 11 S4	Safety compact tool case with insulated tools (3/8") for working on electrical installations				
	98 31	Reversible Ratchet	1	<u></u> ★ 1000 V	
	98 35 125	Extension Bar	1	<u></u> ★ 1000 V	
	98 35 250	Extension Bar	1	<u></u> ★ 1000 V	
	98 37 10	Hexagon socket for hexagonal screws	1	<u></u> ★ 1000 V	
	98 37 11	Hexagon socket for hexagonal screws	1	<u></u> ★ 1000 V	
	98 37 12	Hexagon socket for hexagonal screws	1	<u></u> ★ 1000 V	
	98 37 13	Hexagon socket for hexagonal screws	1	<u></u> ★ 1000 V	
	98 37 14	Hexagon socket for hexagonal screws	1	<u></u> ★ 1000 V	
	98 37 17	Hexagon socket for hexagonal screws	1	<u></u> ★ 1000 V	
	98 37 19	Hexagon socket for hexagonal screws	1	☆1000 V	

98 99 11 S4 **☆ 1000 V**



Safety compact tool case 10 parts

- shock-resistant plastic case
- foam insert with precise recesses for holding the pliers
 equipped with a range of custom insulated KNIPEX tools for work on electrical installations
- all tools 100% tested and meet ASTM F1505 and IEC 60900 requirements
- Dimensions exterior (W x H x D): 14 31/32 x 3 11/32 x 10 15/64"
 Dimensions interior (W x H x D): 13 3/16 x 2 3/4 x 9 3/64"



98 99 11 S5 <u></u> 1000 V

Product Number			Units		∆ ∆ Ounces
98 99 11 S5	Safety compact tool case with insulated tools (1/2") for working on electrical installations				
	98 41	Reversible Ratchet	1	<u></u> 会 1000 V	
	98 45 125	Extension Bar	1	<u></u> 会 1000 V	
	98 45 250	Extension Bar	1	<u></u> 会 1000 V	
	98 47 1/2"	Hexagon socket for hexagonal screws	1	<u></u> 1000 V	
	98 47 1	Hexagon socket for hexagonal screws	1	<u></u> 1000 V	
	98 47 11/16"	Hexagon socket for hexagonal screws	1	<u></u> 1000 V	
	98 47 3/4"	Hexagon socket for hexagonal screws	1	<u></u> 1000 V	
	98 47 5/8"	Hexagon socket for hexagonal screws	1	<u></u> 1000 V	
	98 47 7/8"	Hexagon socket for hexagonal screws	1	<u></u> 1000 V	
	98 47 9/16"	Hexagon socket for hexagonal screws	1	☆ 1000 V	



98 99 11 S6 <u></u> 1000 V

Product Number			Units		∆ Ounces
98 99 11 56	Safety compact tool case with insulated tools (1/2") for working on electrical installations				
	98 41	Reversible Ratchet	1	<u></u> ★ 1000 V	
	98 45 125	Extension Bar	1	<u></u> ★ 1000 V	
	98 45 250	Extension Bar	1	<u></u> ★ 1000 V	
	98 47 13	Hexagon socket for hexagonal screws	1	<u></u> ★ 1000 V	
	98 47 14	Hexagon socket for hexagonal screws	1	<u></u> ★ 1000 V	
	98 47 17	Hexagon socket for hexagonal screws	1	<u></u> ★ 1000 V	
	98 47 19	Hexagon socket for hexagonal screws	1	<u></u> ★ 1000 V	
	98 47 22	Hexagon socket for hexagonal screws	1	<u></u> ★ 1000 V	
	98 47 24	Hexagon socket for hexagonal screws	1	<u></u> 1000 V	
	98 47 27	Hexagon socket for hexagonal screws	1	<u></u> 1000 V	



Standard Tool Case 26 parts

with insulated tools for working on electrical installations



- containing a range of insulated KNIPEX tools for work on electrical installations
- shock-resistant plastic case
- foam inserts with recesses for the tools
- fixable partition wall
- Dimensions exterior (W x H x D): 17 21/64 x 4 1/8 x 15 5/32"

Product Number			Units		۵۵ Ounce
98 99 12	Standard To	ol Case 26 parts			149.2
	03 07 200	8" Combination Pliers	1	<u>A</u> 1000 V @ ← □ □ ► □	
	70 07 160	6 1/4" Diagonal Cutter	1	<u>A</u> 1000 V <u>A</u> ←	
	98 00 10		1		
	98 00 11		1		
	98 00 12		1		
	98 00 13	Open End Wrench	1	<u> </u>	
	98 00 14		1		
	98 00 17		1		
	98 00 19		1		
98	98 53 03	Dismantling Knife for round cable	1	<u>A</u> 1000 V △A	
	98 20 25		1	<u>A</u> 1000 V <u></u>	
	98 20 35	Screwdrivers for slotted screws	1		
	98 20 40		1		
	98 20 55		1		
	98 24 00		1	<u>A</u> 1000 V <u>A</u> €	
	98 24 01	Screwdrivers for cross-recessed screws, Phillips®	1		
	98 24 02		1		
	98 40	T-handle	1	<u>A</u> 1000 V ₩	
	98 47 10		1		
	98 47 11		1		
	98 47 12		1		
	98 47 13	Hexagon Socket for hexagonal screws	1	<u>A</u> 1000 V ○ ③	
	98 47 14		1		
	98 47 17		1		
	98 47 19		1		
	98 52	Cable Knife	1	≙ 1000 V △	



Tool Roll 15 parts

with insulated tools for working on electrical installations

- tool roll made of hard-wearing polyester fabric
 with practical, adjustable quick release fastener
 containing a range of insulated KNIPEX tools for work on electrical installations



98 99 13 **☆1000 V**

Product Number			Units		∆∆ Ounces
98 99 13	Tool Roll 15 p	parts			86.6
	03 07 200	8" Combination Pliers	1	≙ 1000 V △♠ ■■	
	11 07 160	6 1/4" Insulation Stripper	1	<u>A</u> 1000 V △ → ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑	
	26 17 200	8" Snipe Nose Side Cutting Pliers	1	≙ 1000 V △♠ ⊖ □□□	
	70 07 160	6 1/4" Diagonal Cutter	1	<u>A</u> 1000 V △ ←	
	95 17 200	8" Cable Shears	1	≙ 1000 V △ ← ◆ ● ● ● ●	
98 0	98 00 10	Open End Wrench	1	<u>♠</u> 1000 V O	
	98 00 13		1		
	98 00 14		1		
	98 00 17		1		
	98 00 19		1		
	98 20 25		1		
	98 20 40	Canadahaan fan alasta da aanaa	1	A 4000V A 🕒 🗭	
	98 20 55	Screwdriver for slotted screws	1	<u>A</u> 1000 V △ ←	
	95 20 65		1		
	98 52	Cable Knife	1	<u>A</u> 1000 V △ 🚘	
	98 99 13 LE	Tool roll empty	1		



Safety tool rolls 8 parts



98 99 13 S4 **☆ 1000 V**

- plastic tool roll
- equipped with open end wrenches for work on electrical installations
 all tools 100% tested and meet ASTM F1505 and IEC 60900 requirements
- Dimensions, rolled out (W x H x D): 16 9/64 x 63/64 x 11 13/32"
- Dimensions, rolled up (W x H x D): 2 61/64 x 2 61/64 x 11 13/32"

Product Number			Units		∆ ∆ Ounces
98 99 13 S4	Safety tool roll				86.6
	98 00 1/4"	Open End Wrench	1	≙1000V ■■■	
	98 00 5/16"	Open End Wrench	1	≙1000V /////	
	98 00 3/8"	Open End Wrench	1	≙1000V ⊖ ■ ■ ▶ ■	
	98 00 7/16"	Open End Wrench	1	☆1000V	
	98 00 1/2"	Open End Wrench	1	☆1000V �� ፪ 蛋	
	98 00 9/16"	Open End Wrench	1		
	98 00 5/8"	Open End Wrench	1	≙ 1000 V ○	
	98 00 3/4"	Open End Wrench	1		

Product Number			Units		۵۵ Ounces
98 99 13 S5	Safety tool roll				86.6
	98 00 24	Open End Wrench	1	≙1000V ■■■	
	98 00 22	Open End Wrench	1	<u></u> 1000 V /\/\\	
	98 00 19	Open End Wrench	1	≙1000V ⊖ ■ ■ ▶ ■	
	98 00 17	Open End Wrench	1	☆1000V	
	98 00 14	Open End Wrench	1	≙1000∨ ⊕ €3	
	98 00 13	Open End Wrench	1		
	98 00 10	Open End Wrench	1	≙ 1000 V ○	
	98 00 08	Open End Wrench	1		





Universal Tool Case 48 parts

with insulated tools for working on electrical installations

IEC 60900 ASTM F1505



98 99 14

- hard-wearing version made of ABS material, red; containing a range of KNIPEX tools for work on electrical installations, tested according to IEC 60900, as well as additional insulating mats, clamps and gloves
- sturdy aluminum frame with D-shape rings for belt and fix, sturdy center board with multi-purpose push-in facilities by elastic loops and 12 small pockets
- comfortable handle and mounting device for a "trolley" embedded in the bottom (available ordering ref. 00 21 40 T)
- metal hinges
- 66 pounds maximum load
- can be opened on one or both sides; bottom tray and cover can be opened independently
- stands stable in any opening position due to lid-holders and hinge mechanisms on both sides that register in a position of 45° and 90°
- 3-digit lock and 2 clamp-locks for fixation of the lid
- removable document compartment and removable tool board, with 13 push-in compartments on one side

Product Number			Units		∆ ∆ Ounces
98 99 14	Universal Too	Case 48 parts			573.2
	03 07 200	8" Combination Pliers	1	≙ 1000 V △♠ ■ ■	
	11 17 160	6 1/4" Insulation Stripper	1	A 1000 V △ 🗗	
	70 07 160	6 1/4" Diagonal Cutter	1	≙ 1000 V △♣	
	88 07 250	10" KNIPEX Alligator®	1	≙ 1000 V △€ ■ □ □	
	95 17 200	8" Cable Shears	1	☆ 1000 V △♣ ♦ ₽ 3	
	98 00 10	Open End Wrench SW 10 mm	1		
	98 00 13	Open End Wrench SW 13 mm	1		
	98 00 14	Open End Wrench SW 14 mm	1		
	98 00 17	Open End Wrench SW 17 mm	1		
	98 00 19	Open End Wrench SW 19 mm	1		
	98 00 22	Open End Wrench SW 22 mm	1	A	
	98 01 10	Box Wrench SW 10 mm	1	<u>A</u> 1000 V ○	
	98 01 13	Box Wrench SW 13 mm	1		
	98 01 14	Box Wrench SW 14 mm	1		
	98 01 17	Box Wrench SW 17 mm	1		
	98 01 19	Box Wrench SW 19 mm	1		
98	98 01 22	Box Wrench SW 22 mm	1		
	98 67 05	Insulating Mat	3	₽1000 V ♠ ₽	
	98 20 25 98 20 40 98 20 55 98 20 65	Screwdriver for slotted screws	1 1 1	<u>≙</u> 1000 V <u>←</u>	
	98 24 01 98 24 02	Screwdriver for cross-recessed screws, Phillips®	1 1	≙ 1000 V △ ♣ ♦	
	98 40	T-Handle	1	A 1000 V	
	98 42	Reversible Ratchet	1	<u>A</u> 1000 V 🔀	
	98 45 125	Extension Bar 5 in	1	Λ 1000 V II	
	98 45 250	Extension Bar 10 in	1	<u>A</u> 1000 V 🔀 🔞	
	98 47 10	Hexagon Socket for hexagonal screws SW 10 mm	1		
	98 47 11	Hexagon Socket for hexagonal screws SW 11 mm	1		
	98 47 12	Hexagon Socket for hexagonal screws SW 12 mm	1		
	98 47 13	Hexagon Socket for hexagonal screws SW 13 mm	1		
	98 47 14	Hexagon Socket for hexagonal screws SW 14 mm	1	<u>A</u> 1000 V ○ 🗵	
	98 47 17	Hexagon Socket for hexagonal screws SW 17 mm	1		
	98 47 19	Hexagon Socket for hexagonal screws SW 19 mm	1		
	98 47 22	Hexagon Socket for hexagonal screws SW 22 mm	1		
	98 47 24	Hexagon Socket for hexagonal screws SW 24 mm	1		
	98 52	Cable Knife	1	A 1000 V ♠ 🗲	
	98 53 03	Dismantling Knife for round cable	1	<u>A</u> 1000 V <u>A</u>	
	98 64 02	Insulating Clamp	6	₽1000 V MM	
	98 65 40	Electricians' Gloves	1	<u></u> 1000 V	

- 2 tilting locks to fix the middle wall to the bottom
- base tray, height 2 9/32", can be subdivided by flexible inserts; cover plate with 6 large push-in compartments, can be fixed by a snap
- ext. dimensions (W x H x D):
 19 19/64 x 10 3/64 x 16 9/64"
 int. dimensions (W x H x D):
 17 33/64 x (4 1/8 + 4 1/8) x
 13 25/32"



KNIPEX TwinKey®

for all standard cabinets and shut-off systems





- multifunctional key for the actuation of locking systems from the areas of facilities engineering (heating and sanitation, air-conditioning, electrotechnology), gas and water supply and shut-off systems

 8-arm version: two 4-way spider keys connected in a space-saving way
- using magnets
- reversible bit: slot 3/64 x 9/32" and PH 2 cross slot
- key and reversible bit joined by stable stainless steel wire
- quality surface coating
- weight-optimized zinc die cast design













Product	○ ⊐	△ □	-O Ξ	○ ⊒	inch	∆
Number	inch	inch	inch	inch		Ounces
00 11 01	13/64 15/64 - 9/32 5/16 - 23/64 25/64 - 7/16	9/32 - 5/16 23/64 - 25/64 7/16 - 15/32	1/8 - 13/64	15/64	15/64 - 23/64	4.8

Product Number	○ ⊐	⊘ ∃ mm	-O-□ mm	O∃ mm	mm	∆ ∆ Ounces
00 11 01	5 / 6 - 7 / 8 - 9 / 10 - 11	7 - 8 / 9 - 10 / 11 - 12	3 - 5	6	6 - 9	4.8



Control Cabinet Keys

for all standard cabinets and shut-off systems



00 11 02 short execution, total length 1 3/4"

- for control cabinets and shut-off systems in the supply of gas, water and electricity
- for technical installations in buildings, e.g. air conditioning and ventilation systems, shut-off valves, main switch-boards, etc.
- with bit insert: slot 3/64 x 9/32" and cross recess PH 2
- with adapter for 1/4" bits on securing chain
- additional bit adapter for 1/4" bits in one arm
- zinc die casting



Product Number	←→ inch	←→ mm	○ ∃ inch	O ∃	△ □ inch	△ □ mm	-O Ξ inch		ے Ounces
00 11 02	1 3/4	44	13/64 / 15/64 / 5/16	5/6/8	23/64	9	1/8-13/64	3-5	2.3
00 11 03	3	76	13/64 / 15/64 / 5/16	5/6/8	23/64	9	1/8-13/64	3-5	3.1



Profi-Key

for all standard shut-off systems



- key for heating, air-conditioning, sanitation and building engineering, e.g. for door and window handles or for air bleeding heaters
- with bit insert: slot 3/64 x 9/32" and cross recess PH 2
- with adapter for 1/4" bits on securing chain
- additional bit adapter for 1/4" bits in one arm
- total length: 3 1/2"
- zinc die casting



Product Number	←→ inch	←→ mm	O ⊒ mm	O ∃	inch	△ □ mm	inch	mm	∆ Ounces	
00 11 04	3 1/2	90	13/64 / 9/32 / 5/16	5/7/8	23/64 - 25/64	9 - 10	15/64 / 9/32 / 5/16 / 23/64	6/7/8/9	3.0	



Universal Key

for all standard cabinets and shut-off systems



- for locking systems in electrical engineering, the supply of gas and water, air conditioning and ventilation systems, industry, technical installations in buildings, etc.
- 9 different die cast zinc key profiles in one tool
- with detachable chain and snap hook
- total length: 3 1/2"
- zinc die casting



Product Number	←→ inch	←→ mm	○ ⊒ inch	O ∃ mm	△ □ inch	△ □ mm	-O <u>=</u> inch	O ≡	○ 글 inch	O∃ mm	∆ ∆ Ounces
00 11 06	3 1/2	90	13/64 / 15/64 / 9/32 - 5/16 / 23/64 - 25/64	5/6/7-8/9-10	9/32 / 5/16 - 23/64 / 25/64 - 7/16	7 / 8-9 / 10 - 11	1/8-13/64	3-5	15/64	6	7.8



Pen-Style Control Cabinet Key

for all standard cabinets and shut-off systems



- easy to carry pen-style control cabinet key with fastening clip
- four different key profiles can be utilized by swivelling the key holder
- for control cabinets and shut-off systems in the supply of gas, water and electricity
- for technical installations in buildings, e.g. air conditioning and ventilation systems, shut-off valves, main switch-boards, etc.
- universal 1/4" bit adapter for standard bits (permanent magnet for retaining)
- additional bit adapter for 1/4" bits inside one key profile
- with bit insert: cross recess PH 2 and option of safekeeping a second bit
- tool body: plastic, fiberglass-reinforced
- key profiles: zinc die casting





Product Number	←→ inch	←→ mm	○ □ inch	O ⊒	△ □ inch	∆ ⊒	-O Ξ inch	-O∃ mm	∆¹∆ Ounces
00 11 07	5 3/4	145	13/64 / 15/64 / 5/16	5/6/8	23/64	9	1/8-13/64	3-5	5.4



Pen-style Profi-Key

for all standard shut-off systems



- easy to carry pen-style control cabinet key with fastening clip
- three different key profiles can be utilized by swivelling the key holder
- multi-purpose wrench for all work on construction sites with profiles for the areas of heating, air conditioning, plumbing and building services engineering, e.g. for door and window handles or for bleeding air from radiators
- universal 1/4" bit adapter for standard bits (permanent magnet for retaining)
- additional bit adapter for 1/4" bits inside one key profile
- with bit insert: cross recess
 PH 2 and option of safekeeping
 a second bit
- tool body: plastic, fiberglassreinforced
- key profiles: zinc die casting





Product Number	←→ inch	←→ mm	○ ∃ inch	O ⊒	△ ∃ inch	∆ ⊒	inch	mm	∆†∆ Ounces	
00 11 08	5 3/4	145	13/64 / 5/16	5/8	23/64	9	15/64 / 9/32 / 5/16 / 23/64	6/7/8/9	5.0	

Counter displays

• made from high-quality paperboard printed with high gloss finish



Product Number		Contents	Quantity	Widt inch	th mm	Higl inch	nt mm	Dept inch	th mm	∆ ∆ Ounces	
00 19 12 V03	87 01 125	KNIPEX Cobra®	12	11 27/64	290.0	11 1/64	280.0	6 19/64	160.0	43.9	

Counter displays 10 parts



00 19 19 V02

- eye-catching packaging with neutral header
- small size, minimum space required at the point of sale
- dimensions, assembled (W x H x D): 8 55/64 x 17 1/8 x 8 55/64"
- dimensions, packed (W x H x D): 10 15/64 x 13 25/32 x 10 15/64"
- other contents (5 + 5 or 10 pieces) with minimum quantity and delivery time on request
- material: sturdy cardboard, printed

Product Number	Equipping	∆ ∆ Ounces
00 19 19 V01	10 x 68 01 200	127.3
00 19 19 V02	10 x 87 01 250	125.6
00 19 19 V03	10 x 88 01 180	78.3
00 19 19 V04	10 x 88 01 250	127.3
00 19 19 V08	5 x 86 03 180 / 5 x 86 03 250	154.1
00 19 19 V09	5 x 87 01 180 / 5 x 87 01 250	89.6
00 19 19 V10	5 x 87 01 250 / 5 x 87 01 300	163.8
00 19 19 V11	5 x 88 01 250 / 5 x 88 01 300	161.2
00 19 19 V12	5 x 99 00 250 / 5 x 99 00 280	154.1
00 19 19 V13	10 x 71 01 200	134.7
00 19 19 V15	10 x 88 01 300	196.7
00 19 19 V16	10 x 87 01 180	76.4
00 19 19 V17	10 x 87 01 300	203.4
00 19 19 V18	10 x 99 00 220	111.1
00 19 19 V19	10 x 99 00 250	118.2
00 19 19 V20	10 x 99 00 280	160.5
00 19 19 V21	10 x 99 14 250	123.5
00 19 19 V22	5 x 88 01 180 / 5 x 88 01 250	107.1
00 19 19 V33	5 x 88 01 180 / 5 x 88 01 300	157.9



Circlip Pliers Sets 4 parts

- tool roll made of hard-wearing polyester fabricwith practical, adjustable quick release fastener

contains 4 Circlip Pliers for internal and external circlips

00 19 57

contains common Precision Circlip Pliers for highest requirements



00 19 56 00

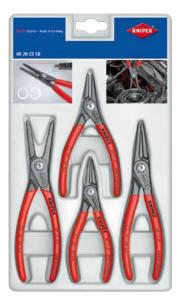


00 19 57 00

Product Number			Style	Tip Ø inch	os Ø mm	Quantity		۵۵ Ounces
00 19 56	Set of Circlip Plie	ers 4 parts						23.6
	44 11 J2	Circlip Pliers	straight tips	3/4 - 2 23/64	19 - 60	1	O	
	44 21 J21	Circlip Pliers	bent tips	3/4 - 2 23/64	19 - 60	1	⊘ <u>√</u> 90°	
	46 11 A2	Circlip Pliers	straight tips	3/4 - 2 23/64	19 - 60	1	OWW	
	46 21 A21	Circlip Pliers	bent tips	3/4 - 2 23/64	19 - 60	1	Ů <u>√</u> 90° MM	
00 19 57	Set of Circlip Plie	ers 4 parts						23.5
	48 11 J1	Precision Circlip Pliers	straight tips	15/32 - 63/64	12 - 25	1	OI	
	48 11 J2	Precision Circlip Pliers	straight tips	3/4 - 2 23/64	19 - 60	1	OI	
	49 11 A1	Precision Circlip Pliers	straight tips	25/64 - 63/64	10 - 25	1	OSSAM	
	49 11 A2	Precision Circlip Pliers	straight tips	3/4 - 2 23/64	19 - 60	1	OSSIM	



Precision Circlip Pliers Sets



00 20 03 SB 💍 💍



00 20 04 SB 💍 💍

- attractive sales packaging
 contains common Precision Circlip Pliers for highest requirements
 sturdy plastic packaging, also suitable for storage of the pliers

00 20 03 SB

4 parts

00 20 04 SB

8 parts

Product Number		Style	Ø inch	Ømm	Quantity		∆ ∆ Ounces
00 20 03 SB	Precision Circlip Pliers Set	<u>'</u>					24.2
	48 11 J1	straight tips	15/32 - 63/64	12 - 25	1	OM	
	48 11 J2	straight tips	3/4 - 2 23/64	19 - 60	1		
	49 11 A1	straight tips	25/64 - 63/64	10 - 25	1	OFIM	
	49 11 A2	straight tips	3/4 - 2 23/64	19 - 60	1		
00 20 04 SB	Precision Circlip Pliers Set						45.0
	48 11 J1	straight tips	15/32 - 63/64	12 - 25	1	OFT	
	48 11 J2	straight tips	3/4 - 2 23/64	19 - 60	1		
	49 11 A1	straight tips	25/64 - 63/64	10 - 25	1	OSSM	
	49 11 A2	straight tips	3/4 - 2 23/64	19 - 60	1		
	48 21 J11	bent tips	15/32 - 63/64	12 - 25	1	€ 190°	
	48 21 J21	bent tips	3/4 - 2 23/64	19 - 60	1	O APO E S	
	49 21 A11	bent tips	15/32 - 63/64	12 - 25	1	° ≥ 3 9 0° ≥ 3 M	
	49 21 A21	bent tips	3/4 - 2 23/64	19 - 60	1	U ≥30 € € /VVV	

Pliers Sets

• popular pliers sets packaged in durable plastic packaging



00 20 05 US00



00 20 06 US1



00 20 06 US2



00 20 07 US1

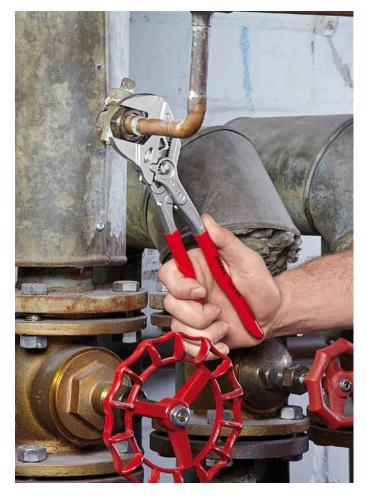


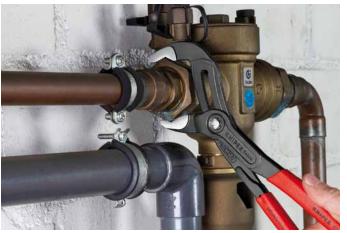
00 20 08 US1



00 20 08 US2

								Cutting c	apacities				
Product Number			←→ inch	↔ mm		● Ø inch	Ø inch	Ø inch	● Ø mm	Ø mm	Ø mm	Quantity	∆∆ Ounces
00 20 05 US	74 01 160	High Leverage Diagonal Cutter	6 1/4	160	P4	1/8	3/32	5/64	3.4	2.5	2.0	1	964
	74 01 250	High Leverage Diagonal Cutter	10	250		3/16	9/64	1/8	4.6	3.5	3.0	1	
	74 21 200	High Leverage Diagonal Cutter	8	200	<u>√1</u> 2° ▶◀	11/64	1/8	3/32	4.2	3.0	2.5	1	
00 20 06 US1	87 01 180	KNIPEX Cobra®	7 1/4	180		1/8	3/32	5/64	3.4	2.5	2.0	1	1211
	87 01 250	KNIPEX Cobra®	10	250		3/16	9/64	1/8	4.6	3.5	3.0	1	
	87 01 300	KNIPEX Cobra®	12	300		1/8	3/32	5/64	3.4	2.5	2.0	1	
00 20 06 US2	86 03 180	KNIPEX Pliers Wrench	7 1/4	180		1/8	3/32	5/64	3.4	2.5	2.0	1	1643
	86 03 250	KNIPEX Pliers Wrench	10	250		3/16	9/64	1/8	4.6	3.5	3.0	1	
	86 03 300	KNIPEX Pliers Wrench	12	300		1/8	3/32	5/64	3.4	2.5	2.0	1	
00 20 07 US1	88 01 180	KNIPEX Alligator®	7 1/4	180		1/8	3/32	5/64	3.4	2.5	2.0	1	1176
	88 01 250	KNIPEX Alligator®	10	250		3/16	9/64	1/8	4.6	3.5	3.0	1	
	88 01 300	KNIPEX Alligator®	12	300		1/8	3/32	5/64	3.4	2.5	2.0	1	
00 20 08 US1	26 11 200	Snipe Nose Side Cutting Pliers	8	200	$\Theta \blacksquare \blacksquare \blacksquare \blacksquare$	1/8	3/32	5/64	3.2	2.2	2.0	1	904
	74 21 200	High Leverage Diagonal Cutter	8	200	<u>√1</u> 2° ▶◀	11/64	1/8	3/32	4.2	3.0	2.5	1	
	88 01 250	KNIPEX Alligator®	10	250		1/8	3/32	5/64	3.4	2.5	2.0	1	
00 20 08 US2	26 11 200	Snipe Nose Side Cutting Pliers	8	200	$\Theta \blacksquare \triangleright \P$	1/8	3/32	5/64	3.2	2.2	2.0	1	909
	74 21 200	High Leverage Diagonal Cutter	8	200	<u>√1</u> 2° ▶◀	11/64	1/8	3/32	4.2	3.0	2.5	1	
	87 01 250	KNIPEX Cobra®	10	250		1/8	3/32	5/64	3.4	2.5	2.0	1	









Pliers Sets in a foam tray



00 20 01 V01



00 20 01 V02



00 20 01 V03

- packaged in a foam tray for workbenches and tool trolleys
 clearly organized storage of tools
 precisely-sized recesses for holding the pliers
 foam insert dimensions (LxWxH): 13 3/16 x 6 1/2 x 1 19/64"

- material: two color, closed pore foam

00 20 01 V01

4 pliers in a foam tray

00 20 01 V02 6 Circlip Pliers in a foam tray

00 20 01 V03

3 pliers in a foam tray





Product Number			Quantity		∆ ∆ Ounces
00 20 01 V01	Pliers Set "Basic"	4 pliers in a foam tray			38.6
	03 05 180	7 1/4" Combination Pliers	1		
	26 15 200	8" Snipe Nose Side Cutting Pliers	1	$\Theta \blacksquare \blacksquare \blacksquare \blacksquare \blacksquare$	
	74 05 180	7 1/4" High Leverage Diagonal Cutter	1	P 4	
	87 01 250	10" KNIPEX Cobra®	1		
00 20 01 V02	Circlip Pliers Set 6	circlip pliers in a foam tray			32.3
	48 11 J1	Precision Circlip Pliers	1	69 5 -7	
	48 11 J2	Precision Circlip Pliers	1	on	
	48 21 J21	Precision Circlip Pliers	1	O <u>₹</u> 90° F €	
	49 11 A1	Precision Circlip Pliers	1	23 5 -7 4444	
	49 11 A2	Precision Circlip Pliers	1	OSS	
	49 21 A21	Precision Circlip Pliers	1	○ <u>₹</u> 90° § § \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	
00 20 01 V03	Water Pump Pliers	Set 3 pliers in a foam tray			37.6
	85 01 250	10" KNIPEX Auto Adjusting Pliers	1		
	87 41 250	10" KNIPEX Raptor™ Pliers	1		
	87 51 250	10" KNIPEX Cobra® ES	1		



Pliers Sets



00 20 09 V01



00 20 10

- popular pliers sets packaged in a heavy duty display box
- material: sturdy cardboard packaging, printed

00 20 09 V01

pliers with polished heads; handles with either non-slip plastic coating or with two-color multi-component grips

00 20 10

pliers with polished heads and plastic coated handles

00 20 11

pliers with two-color multi-component grips



00 20 11

Product Quantity $\nabla \nabla$ Number **Ounces** 33.5 00 20 09 V01 Bestseller Pack 03 02 180 7 1/4" Combination Pliers 70 02 160 6 1/4" Diagonal Cutter 87 01 250 10" KNIPEX Cobra® 00 20 10 Power-Pack 34.9 02 01 180 7 1/4" High Leverage Combination Pliers 74 01 160 6 1/4" High Leverage Diagonal Cutter 87 01 250 10" KNIPEX Cobra® 00 20 11 33.0 Assembly Pack 7 1/4" Combination Pliers 03 02 180 26 12 200 8" Snipe Nose Side Cutting Pliers Θ 70 02 160 6 1/4" Diagonal Cutter



Compact-Box

4 parts with VDE tools

☆1000V △★



■ foam insert

00 20 15 all pliers VDE tested according to IEC 60900 and ASTM F1505, pliers finish 6

contains four popular insulated tools

• high quality, versatile, shock-resistant plastic case

outside dimensions (H x W x D): 2 9/16 x 12 7/8 x 10 53/64"

Prod Num				Quantity		(
00 2	0 15					
		03 06 180	Combination Pliers	1	≙ 1000 V △€ ■■	
		11 06 160	Wire Stripper	1	≙ 1000 V △♣ ///	
		26 16 200	Snipe Nose Side Cutting Pliers	1	☆ 1000 V ☆ ← → ● ■ ■	
		70 06 160	Diagonal Cutter	1	≙ 1000 V △△	

50.4



Electronics Pliers Sets

for working on electronic components



00 20 16

7 parts, contains 6 Eectronics Pliers and one pair of Precision Tweezers; case made of hard-wearing polyester fabric; pliers are held by elastic band, with zip fastener

00 20 17

6 parts, contains 6 ESD Electronics Pliers, electrically discharging version; case made of hard-wearing polyester fabric; pliers are held by elastic band, with zip fastener

Product Number	Equipping	ے ک Ounces
00 20 16	35 12 115 / 35 22 115 / 35 32 115 / 64 32 120 / 77 02 115 / 77 42 115 / 92 34 36	25.4
00 20 17	35 12 115 ESD / 35 22 115 ESD / 35 42 115 ESD / 64 32 120 ESD / 77 02 115 ESD / 77 32 115 ESD	24.5



KNIPEX Minis in belt pouch

2-piece



00 20 72 V01

- KNIPEX "mini" pliers in a practical tool belt
- made of hard-wearing polyester fabric
- with hook and loop fastener
- with elastic side holder
- with practical belt loop
- Dimensions (W x H x D): 2 49/64 x 6 11/16 x 1 31/32"

Product Number			Quantity		ے ک Ounces
00 20 72 V01	KNIPEX Minis in	12.3			
	86 03 150	6" Pliers Wrench	1		
	87 01 125	5" KNIPEX Cobra®	1		



Tool Box 7 parts

for electrical contractors



high quality and versatile shock-resistant casefoam insert

- outside dimensions (H x W x D): 2 9/16 x 12 7/8 x 10 53/64"

00 21 15

all pliers and screwdrivers except Water Pump Pliers VDE tested according to IEC 60900 / ASTM F1505

Product Number				Quantity		∆ ∆ Ounces
00 21 15	Tool Box 7 pa	arts				53.6
	03 06 180	7 1/4" Combination Pliers		1	≙ 1000 V △€ □ □	
26 16 200		8" Snipe Nose Side Cutting Pliers	W .	1	≙ 1000 V △€ ⊖ □ □	
	70 06 160	6 1/4" Diagonal Cutter	Knipex	1	≙ 1000 V △€	
	88 03 180	7 1/4" KNIPEX Alligator®		1		
	006100	Screwdrivers for slotted screws		1	≙ 1000 V △♠	
	006115	Screwarivers for slotted screws	14/	1	≙ 1000 V △€	
	006152	Screwdrivers for cross recessed Phillips screws	Wera	1	≙ 1000 V △	



Belt Pouch for two pliers



00 19 72 LE

- for two pliers up to 6" length made of hard-wearing polyester fabric
- with hook and loop fastener
- with elastic side holder
- with practical belt loop
- pliers not included

Product	Width	Height	Depth	Width	Height	Depth	۵۵
Number	inch	inch	inch	mm	mm	mm	Ounces
00 19 72 LE	2 9/16	6 7/64	1.0	65.0	155.0	25.0	2.3



Belt Tool Pouch



00 19 73 LE

- made of hard-wearing polyester fabric and leather
- with pockets for up to 8 tools
- tool loops made of leather, riveted
- with snap hook
- pliers not included

Product	Width	Height	Depth	Width	Height	Depth	∆∆
Number	inch	inch	inch	mm	mm	mm	Ounces
00 19 73 LE	6 11/16	9 1/4	2 61/64	170.0	235.0	75.0	7.4



Tool Case "Big Twin-Move"

with integrated rollers and telescopic handle empty



- heavy duty ABS material, black
- all around aluminium frame and firmly-mounted sturdy center board, each side offering multi-purpose push-in facilities by elastic loops and 12 small pockets
- pull-out handle embedded in the base and two wheels
- 66 pound maximum load
- can be opened on one or both sides (V form); base tray and cover can be partially or fully opened independently of each other; stands securely in all opening positions; the special wheels are easy on the floor and ensure stability
- lockable
- removable document compartment and removable tool panel with 13 tool pouches
- base tray, height 2 23/64, can be subdivided by flexible inserts; tool panel as cover plate with 13 tool pouches
- dimensions, outside (W x H x D): 20 5/64 x 10 5/8 x 16 9/64"
- dimensions, lid, inside (W x H x D): 18 29/32 x 4 1/8 x 14 37/64"
- dimensions, base, inside (W x H x D): 17 33/64 x 4 1/8 x 13"









	Dimension external (internal)								
Product Number	width inch	height inch	depth inch	width mm	height mm	depth mm	∆ Ounces		
00 21 41 LE	20 5/64 (18 29/32 17 33/64)	10 5/8 (4 1/8 4 1/8)	16 9/64 (14 37/64 13)	510 (480 / 445)	270 (105 / 105)	410 (370 / 330)	303.4		



Test Supports





00 19 20

for showing the self-locking function of the Alligator® and Cobra®Water Pump Pliers; steady stand, high stability; pliers not included

00 19 21 T

for testing the ratchet-action of the Pliers Wrench; can be fixed on the wall; pliers not included

Product Number	Width inch	Height inch	Depth inch	Width mm	Height mm	Depth mm	۵۵ Ounces
00 19 20	9 1/16	6 1/2	12 13/64	230.0	165.0	310.0	49.0
00 19 21 T	3 11/32	3 11/32	5 29/32	85.0	85.0	150.0	26.0

00 19

Sales Display



- for 8 x 7 pliers
- solid style; can be adhered to a tool bar or used as a counter display
- with header
- assortment on request
- product detail header available
- pliers not included
- material: sheet steel/steel wire, silver powder coated

Product	Width	Height	Depth	Width	Height	Depth	۵۵
Number	inch	inch	inch	mm	mm	mm	Ounces
00 19 25	19 19/64	15 3/4	12 13/64	490.0	400.0	310.0	146.0



Magnetic Labels

- to be placed on tool bar systems
- different versions; see table





00 19 30 15





00 19 30 18 00 19 30 16





00 19 30 20

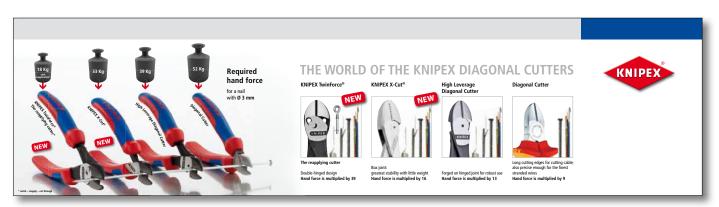
00 19 30 19

Product Number		Width inch	Height inch	Width mm	Height mm
00 19 30 15	KNIPEX Quality – Made in Germany	38 37/64	3 15/16	980	100
00 19 30 16	VDE 1000 Volt	38 37/64	3 15/16	980	100
00 19 30 17	KNIPEX Quality – Made in Germany	25 37/64	3 15/16	650	100
00 19 30 18	VDE 1000 Volt	25 37/64	3 15/16	650	100
00 19 30 19	KNIPEX Quality – Made in Germany	35 7/16	7 7/8	900	200
00 19 30 20	KNIPEX pliers	25 37/64	7 7/8	650	200

"The World of the KNIPEX Diagonal Cutters"

- to be placed on tool bar systems
- versions in different languages available
- dimensions, assembled (W x H): 660 x 170 mm

Product Number		Width inch	Height inch	Width mm	Height mm
L130 00330 EN	English Version	26	6 11/16	660	170
L130 00330 FR	French Version	26	6 11/16	660	170
L130 00330 ES	Spanish Version	26	6 11/16	660	170



L130 00330

Pliers Racks for tool bar systems



00 19 34 1 for 5 x 6 carded pliers; with header sign

00 19 34 2 for 15 x 6 pliers



00 19 34 2

Product Number	Designation	Width inch	Height inch	Depth inch	Width mm	Height mm	Depth mm	۵۵ Ounces
00 19 34 1	for 5 x 6 carded pliers	18 57/64	7 7/8	8 55/64	480.0	200.0	225.0	37.6
00 19 34 2	for 15 x 6 pliers	39 11/64	5 23/32	8 15/32	995.0	145.0	215.0	79.4

Sales Displays



00 19 34 3 for pliers finish 0; 1; 3 or 4



00 19 34 4 for pliers finish 2; 5 or 6



C320 00275



C320 00286



C320 00297



C320 00330



C320 00352



C320 00363



C320 00429



C320 00451

Article No.	EAN 4003773-	Designation	Width inch	Height inch	Depth inch	Width mm	Height mm	Depth mm	ے Ounces
00 19 34 3	054450	for 3 x 6 pliers; for pliers finish 0/1/3 or 4	9 29/64	12 39/64	12 13/64	240.0	320.0	310.0	82.5
00 19 34 4	054467	for 3 x 6 pliers; for pliers finish 2/5/8	9 29/64	12 39/64	12 13/64	240.0	320.0	310.0	82.5
C320 00275	054535	Header Precision Circlip Pliers 48/49							

C320 00275	054535	Header Precision Circlip Pliers 48/49
C320 00286	054504	Header Concretors' Nippers
C320 00297	054481	Header Cobra®; Pliers Wrenches
C320 00330	054511	Header General Programme
C320 00352	060284	Header Multiple Slip Joint Spanners
C320 00363	060291	Header Self-adjusting Insulation Strippers
C320 00429	062271	Header for 74 12
C320 00451	063032	Header Cobra® ES

02 01 180	20	12 62 180	30	25 21 160	37	35 31 115	45	44 31 J22	52	49 21 A11	57	64 42 115	65
02 01 200	20	12 69 21	30	26 11 200	38	35 32 115	45	44 31 J32	52	49 21 A21	57	64 52 115	65
02 01 225	20	12 69 23	30	26 11 200 S1	38	35 42 115	45	44 31 J42	52	49 21 A31	57	64 62 120	65
02 02 180	20	12 64 180	30	26 18 200 SBA	38	35 52 145	45	46 11 A0	53	49 21 A41	57	64 72 120	65
02 02 200	20	12 69 31	30	26 12 200	38	35 62 145	45	46 11 A1	53	49 31 A0	57	64 62 120 ESD	66
02 02 225	20	12 80 040 SB	31	26 21 200	38	35 72 145	45	46 11 A2	53	49 41 A01	57	64 62 120 ESD	66
02 08 200 SBA	20	13 01 160	31	26 28 200 SBA	38	35 82 145	45	46 11 A3	53	46 10 100	58	67 01 140	67
02 08 225 SBA	20	13 02 160	31	26 22 200	38	35 12 115 ESD	46	46 11 A4	53	50 01 160	59	67 01 160	67
03 01 140	21	13 01 614	31	26 11 200	38	35 22 115 ESD	46	46 21 A01	53	50 01 180	59	67 01 200	67
03 01 180	21	13 81 8	32	26 11 200 S1	38	35 42 115 ESD	46	46 21 A11	53	50 01 210	59	68 01 160	67
03 01 200	21	13 82 8	32	26 18 200 SBA	38	36 12 130	47	46 21 A21	53	50 01 225	59	68 01 180	67
03 01 250	21	13 88 8	32	26 12 200	38	36 22 125	47	46 21 A31	53	50 01 250	59	68 01 200	67
03 02 160	21	13 81 8	32	26 21 200	38	36 32 125	47	46 21 A41	53	50 01 300	59	69 01 130	67
03 02 180	21	13 82 8	32	26 28 200 SBA	38	36 12 130	47	46 31 A02	53	51 01 210	59	69 01 130	67
03 02 200	21	13 88 8	32	26 22 200	38	36 22 125	47	46 31 A12	53	55 00 300	59	70 01 110	69
03 08 160 SBA	21	15 11 120	33	28 01 200	39	36 32 125	47	46 31 A22	53	57 00 360	60	70 01 125	69
03 08 180 SBA	21	16 20 16 SB	33	28 21 200	39	37 11 125	48	46 31 A32	53	99 00 200	60	70 01 140	69
03 08 200 SBA	21	16 30 135 SB	33	29 11 160	39	37 21 125	48	46 31 A42	53	99 00 220	60	70 01 160	69
09 01 240	22	16 40 150 SB	34	29 21 160	39	37 31 125	48	44 10 J5	54	99 00 250	60	70 01 180	69
09 02 240	22	16 49 150	34	31 11 160	40	37 43 125	48	44 10 J6	54	99 00 280	60	70 02 125	69
09 08 240	22	16 65 125 SB	34	31 21 160	40	37 11 125	48	44 20 J51	54	99 00 300	60	70 02 140	69
09 11 240	22	19 01 130	35	31 11 160	40	37 21 125	48	44 20 J61	54	99 01 200	60	70 02 160	69
09 12 240	22	19 01 130	35	31 21 160	40	37 31 125	48	44 19 J6	54	99 01 220	60	70 02 180	69
11 01 160	23	20 01 125	35	30 41 160	40	37 43 125	48	45 10 170	54	99 01 250	60	70 08 160 SBA	69
11 02 160	23	20 01 140	35	30 11 190	41	38 11 200	49	45 21 200	54	99 01 280	60	70 08 180 SBA	69
11 08 160	23	20 01 160	35	30 16 160	41	38 21 200	49	46 10 A5	55	99 01 300	60	71 01 200	71
11 82 130	24	20 01 200	35	30 21 160	41	38 31 200	49	46 10 A6	55	99 10 250	61	71 01 200 R SBA	71
11 92 140	24	20 06 160	35	30 31 140	41	38 35 200	49	46 20 A51	55	99 10 300	61	71 02 200	71
12 21 180	24	22 01 125	36	30 31 160	41	38 41 190	49	46 20 A61	55	99 11 250	61	71 12 200	71
12 29 180	24	22 01 140	36	30 36 160	41	38 71 200	49	46 11 G0	55	99 11 300	61	71 21 200	71
12 12 02	26	22 01 160	36	32 21 135	42	38 91 200	49	46 11 G1	55	99 14 250	61	71 22 200	71
12 12 06	26	22 01 180	36	32 31 135	42	40 04 180	50	46 11 G2	55	99 14 300	61	71 31 200	71
12 12 10	26	22 02 140	36	33 01 160	42	40 04 250	50	46 11 G3	55	61 01 200	62	71 31 200 R SBA	71
12 12 11	26	22 02 160	36	33 03 160	42	41 04 180	50	46 11 G4	55	61 01 200	62	71 32 200	71
12 12 12	26	22 08 160 SBA	36	34 12 130	43	41 04 250	50	48 11 J0	56	62 12 120	62	71 41 200	71
12 19 02	26	23 01 140	36	34 22 130	43	41 04 300	50	48 11 J1	56	62 12 120	62	71 72 460	72
12 19 06	26	23 01 140	36	34 32 130	43	41 14 250	50	48 11 J2	56	64 02 115	65	71 72 610	72
12 19 10	26	25 01 125	37	34 12 130	43	41 34 165	50	48 11 J3	56	64 11 115	65	71 72 760	72
12 19 11	26	25 01 140	37	34 22 130	43	44 11 J0	52	48 11 J4	56	64 12 115	65	71 72 910	72
12 19 12	26	25 01 160	37	34 32 130	43	44 11 J1	52	48 21 J01	56	64 22 115	65	71 82 950	73
12 40 200	28	25 02 140	37	34 12 130 ESD	44	44 11 J2	52	48 21 J11	56	64 32 120	65	72 01 140	74
12 50 200	28	25 02 160	37	34 22 130 ESD	44	44 11 J3	52	48 21 J21	56	64 42 115	65	72 01 160	74
12 49 01	28	25 08 160 SBA	37	34 32 130 ESD	44	44 11 J4	52	48 21 J31	56	64 52 115	65	72 01 180	74
12 49 02	28	25 21 160	37	34 12 130 ESD	44	44 21 J01	52	48 21 J41	56	64 62 120	65	72 11 160	74
12 49 03	28	25 01 125	37	34 22 130 ESD	44	44 21 J11	52	49 11 A0	57	64 72 120	65	72 21 160	74
12 59 01	28	25 01 140	37	34 32 130 ESD	44	44 21 J21	52	49 11 A1	57	64 02 115	65	72 51 160	74
12 59 02	28	25 01 160	37	35 11 115	45	44 21 J31	52	49 11 A2	57	64 11 115	65	73 02 160	75
12 42 195	29	25 02 140	37	35 12 115	45	44 21 J41	52	49 11 A3	57	64 12 115	65	73 05 160	75
12 49 21	29	25 02 160	37	35 21 115	45	44 31 J02	52	49 11 A4	57	64 22 115	65	73 06 160	75
12 49 23	29	25 08 160 SBA	37	35 22 115	45	44 31 J12	52	49 21 A01	57	64 32 120	65	73 02 160	75

73 05 160	75	77 52 115	83	79 22 125 ESD	91	87 03 125	99	92 08 78 ESD	115	97 43 06	125	97 52 06	129
73 06 160	75	77 72 115	83	79 32 125 ESD	91	87 03 180	99	92 28 69 ESD	115	97 49 04	126	97 52 09	129
74 01 140	77	77 01 115	83	79 42 125 ESD	91	87 03 250	99	92 38 75 ESD	115	97 49 05	126	97 52 13	129
74 01 160	77	77 01 130	83	79 52 125 ESD	91	87 03 300	99	92 58 74 ESD	115	97 49 06	126	97 52 19	129
74 01 180	77	77 02 115	83	79 62 125 ESD	91	87 05 180	99	92 27 61	115	97 49 08	126	97 52 23	129
74 01 200	77	77 12 115	83	79 02 120 ESD	91	87 05 250	99	92 27 62	115	97 49 09	126	97 49 94	129
74 01 250	77	77 22 115	83	79 02 125 ESD	91	87 05 300	99	92 37 64	115	97 49 13	126	97 49 95	129
74 02 140	77	77 22 130	83	79 12 125 ESD	91	87 01 400	100	92 67 63	115	97 49 15	126	97 51 12	130
74 02 160	77	77 42 115	83	79 22 120 ESD	91	87 01 560	100	95 06 230	116	97 49 16	126	97 59 12	130
74 02 180	77	77 42 130	83	79 22 125 ESD	91	85 01 250 US	102	95 11 165	117	97 49 18	126	97 52 14	130
74 02 200	77	77 52 115	83	79 32 125 ESD	91	87 21 250	103	95 12 165	117	97 49 19	126	97 52 20	130
74 02 250	77	77 72 115	83	79 42 125 ESD	91	87 28 250	103	95 18 165 SBA	117	97 49 20	126	97 59 14	130
74 08 200	77	77 02 115 ESD	84	79 52 125 ESD	91	87 41 250 RAP	104	95 21 165	117	97 49 23	126	97 52 30	131
74 08 250	77	77 22 115 ESD	84	79 62 125 ESD	91	87 51 250	105	95 22 165	117	97 49 24	126	97 52 33	131
74 12 160	77	77 42 115 ESD	84	81 03 230	93	87 51 250	105	95 11 200	117	97 49 30	126	97 52 34	131
74 12 180	77	77 02 115 ESD	84	81 13 230	93	88 01 180	107	95 12 200	117	97 49 35	126	97 52 35	131
74 21 160	77	77 22 115 ESD	84	81 19 230	93	88 01 250	107	95 18 200 SBA	117	97 49 40	126	97 52 36	131
74 21 180	77	77 42 115 ESD	84	84 11 200	93	88 01 300	107	95 12 500	118	97 49 44	126	97 52 37	131
74 21 200	77	78 03 125	87	84 21 200	93	88 02 180	107	95 17 500	118	97 49 50	126	97 52 50	131
74 21 250	77	78 23 125	87	83 10 010	94	88 02 250	107	95 31 250	119	97 49 54	126	97 49 94	131
74 22 200	77	78 31 125	87	83 10 015	94	88 02 300	107	95 31 280	119	97 49 59	126	97 49 95	131
74 22 250	77	78 41 125	87	83 10 020	94	88 07 250	107	95 36 250	119	97 49 60	126	97 52 63 DG	132
73 71 180	79	78 61 125	87	83 10 030	94	88 08 250 SBA	107	95 36 280	119	97 49 62	126	97 52 65	132
73 72 180	79	78 71 125	87	83 10 040	94	90 01 125	108	95 32 320	119	97 49 64	126	97 52 65 DG	132
73 71 180	79	78 03 125	87	83 20 010	94	90 20 185	109	95 36 320	119	97 49 66 4	127	97 59 65 2	132
73 72 180	79	78 23 125	87	83 20 015	94	90 29 185	109	95 39 280	119	97 49 66 6	127	97 53 04	133
74 91 250	79	78 31 125	87	83 20 020	94	90 25 20	109	95 32 038	120	97 49 69 1	127	97 53 14	133
74 91 250	79	78 41 125	87	83 30 005	95	90 29 01	109	95 39 038	120	97 49 69 2	127	97 53 08	134
75 02 125	80	78 61 125	87	83 30 010	95	90 29 02	109	95 32 060	121	97 49 70	127	97 53 09	134
75 12 125	80	78 71 125	87	83 30 015	95	90 29 15	109	95 32 100	121	97 49 74	127	97 61 145 A	135
75 22 125	80	78 03 125 ESD	87	83 30 020	95	90 25 40	110	95 39 720	121	97 49 76	127	97 62 145 A	135
75 52 125	80	78 03 125 ESD	87	83 30 030	95	90 29 40	110	95 39 870	121	97 49 81	127	97 68 145 A	135
75 02 125	80	79 02 120	89	83 60 010	95	90 42 250	110	95 61 190	122	97 49 82	127	97 71 180	135
75 12 125	80	79 02 125	89	83 60 015	95	90 42 340	110	95 62 190	122	97 49 83	127	97 72 180	135
75 22 125	80	79 12 125	89	86 03 150	97	90 49 340	110	95 61 150	123	97 49 84	127	97 91 01	136
75 52 125	80	79 22 120	89	86 03 180	97	90 49 340 M	110	95 71 445	123	97 49 87	127	97 49 62	136
76 01 125	81	79 22 125	89	86 03 250	97	90 55 280	111	95 71 600	123	97 49 59 1	127	97 49 63	136
76 22 125	81	79 32 125	89	86 03 300	97	90 59 280	111	95 77 600	123	97 49 65 1	127	97 49 65	136
76 81 125	81	79 42 125	89	86 05 150	97	90 61 16	111	95 71 445	123	97 49 66 1	127	97 49 65 1	136
76 01 125	81	79 02 120	89	86 05 180	97	90 61 20	111	95 71 600	123	97 49 68 1	127	97 49 65 2	136
76 22 125	81	79 02 125	89	86 05 250	97	90 70 220	112	95 77 600	123	97 49 69 11	127	97 49 66	136
76 81 125	81	79 12 125	89	86 07 250 SBA	97	91 31 180	112	95 79 445	123	97 49 90	127	97 49 66 1	136
77 01 115	83	79 22 120	89	87 01 125	99	91 51 160	113	95 79 600	123	97 49 93	127	97 49 66 4	136
77 01 130	83	79 22 125	89	87 01 150	99	91 71 160	113	95 89 600	123	97 49 94	127	97 49 66 6	136
77 02 115	83	79 32 125	89	87 01 180	99	91 61 160	113	97 21 215	124	97 49 95	127	97 49 67	136
77 12 115	83	79 42 125	89	87 01 250	99	92 22 12	114	97 22 240	124	97 59 65 2	127	97 49 68	136
77 22 115	83	79 02 120 ESD	91	87 01 300	99	92 22 13	114	97 32 225	124	97 49 65 2	128	97 49 68 1	136
77 22 130	83	79 02 125 ESD	91	87 02 180	99	92 22 35	114	97 43 200	125	97 51 10	128	97 49 69 1	136
77 42 115	83	79 12 125 ESD	91	87 02 250	99	92 34 36	114	97 43 200 A	125	97 59 06	128	97 49 69 2	136
77 42 130	83	79 22 120 ESD	91	87 02 300	99	92 70 46	114	97 43 05	125	97 52 05	129	97 49 69 11	136

97 49 59	136	97 99 42	138	74 08 250 SBA	146	98 05 17	154	98 37 5/8"	157	98 65 03	161	00 19 19 V15	175
97 91 02	137	97 99 43	138	73 06 160	147	98 05 19	154	98 37 3/4"	157	98 65 10	161	00 19 19 V16	175
97 91 02 LE	137	97 99 44	138	73 06 160	147	98 04 08	154	98 37 1/4"	157	98 65 20	161	00 19 19 V17	175
97 99 01	138	97 99 45	138	86 07 250 SBA	147	98 04 17	154	98 47 10	157	98 65 30	161	00 19 19 V18	175
97 99 02	138	97 99 46	138	87 28 250 SBA	148	98 04 19	154	98 47 11	157	98 90	161	00 19 19 V19	175
97 99 03	138	97 99 47	138	88 08 250 SBA	148	98 05 13	154	98 47 12	157	98 98 20 US	162	00 19 19 V20	175
97 99 04	138	97 99 48	138	95 06 230	149	98 05 17	154	98 47 13	157	98 98 21 US	162	00 19 19 V21	175
97 99 05	138	97 99 49	138	95 18 165 SBA	149	98 05 19	154	98 47 14	157	98 98 22 US	162	00 19 19 V22	175
97 99 06	138	97 99 70	138	95 18 200 SBA	150	98 07 250	155	98 47 16	157	98 98 25 US	163	00 19 19 V33	175
97 99 07	138	97 99 71	138	95 17 500	150	98 07 250	155	98 47 17	157	98 98 26 US	163	00 19 56	176
97 99 08	138	97 99 72	138	95 36 250	151	98 14 05	155	98 47 18	157	98 98 27 US	163	00 19 57	176
97 99 09	138	97 99 73	138	95 36 280	151	98 14 06	155	98 47 19	157	98 98 30 US	164	00 20 03 SB	177
97 99 10	138	97 99 74	138	95 39 280	151	98 14 08	155	98 47 22	157	98 98 31 US	164	00 20 04 SB	177
97 99 11	138	97 99 75	138	95 36 320	151	98 15 05	155	98 47 24	157	98 99 11 S3	165	00 20 05 US	179
97 99 12	138	97 99 76	138	95 39 280	151	98 15 06	155	98 47 27	157	98 99 11 S4	165	00 20 06 US1	179
97 99 13	138	97 99 77	138	95 77 600	152	98 15 08	155	98 47 1/2"	157	98 99 11 S5	166	00 20 06 US2	179
97 99 14	138	97 99 78	138	95 77 600	152	98 14 05	155	98 47 9/16"	157	98 99 11 S6	166	00 20 07 US1	179
97 99 15	138	97 99 79	138	95 79 600	152	98 14 06	155	98 47 5/8"	157	98 99 12	167	00 20 08 US1	179
97 99 16	138	97 99 92	138	97 68 145 A	152	98 14 08	155	98 47 11/16"	157	98 99 13	168	00 20 08 US2	179
97 99 17	138	97 99 93	138	98 00 7/16"	153	98 15 05	155	98 47 3/4"	157	98 99 13 S4	169	00 20 01 V01	180
97 99 18	138	97 99 95	138	98 00 1 1/16"	153	98 15 06	155	98 47 7/8"	157	98 99 13 S5	169	00 20 01 V02	180
97 99 19	138	97 99 96	138	98 01 1 1/16"	153	98 15 08	155	98 47 1"	157	98 99 14	171	00 20 01 V03	180
97 99 20	138	02 08 200 SBA	142	98 01 1/2"	153	98 30	156	98 39 05	158	00 11 01	172	00 20 09 V01	181
97 99 21	138	02 08 225 SBA	142	98 01 1/16"	153	98 40	156	98 39 06	158	00 11 01	172	00 20 10	181
97 99 22	138	03 08 160 SBA	142	98 01 3/4"	153	98 31	156	98 49 05	158	00 11 02	173	00 20 11	181
97 99 23	138	03 08 180 SBA	142	98 01 3/8"	153	98 41	156	98 49 06	158	00 11 03	173	00 20 15	181
97 99 24	138	03 08 200 SBA	142	98 01 5/16"	153	98 35 125	156	98 49 08	158	00 11 04	173	00 20 16	182
97 99 25	138	09 08 240	143	98 01 5/8"	153	98 35 250	156	98 33 25	158	00 11 06	173	00 20 17	182
97 99 26	138	11 08 160 SBA	143	98 01 7/16"	153	98 45 125	156	98 33 50	158	00 11 07	174	00 20 72 V01	182
97 99 27	138	13 88 8	143	98 01 7/8"	153	98 45 250	156	98 43 50	158	00 11 08	174	00 21 15	183
97 99 28	138	20 06 160	144	98 01 9/16"	153	98 37 10	157	98 42	158	00 19 12 V01	175	00 19 72 LE	184
97 99 29	138	22 08 160 SBA	144	98 03 04	154	98 37 11	157	98 52	159	00 19 12 V02	175	00 19 73 LE	184
97 99 30	138	30 16 160	144	98 03 05	154	98 37 12	157	98 54	159	00 19 12 V03	175	00 21 41 LE	185
97 99 31	138	30 36 160	144	98 03 08	154	98 37 13	157	98 53 03	159	00 19 19 V01	175	00 19 20	186
97 99 32	138	25 08 160 SBA	145	98 03 10	154	98 37 14	157	98 53 13	159	00 19 19 V02	175	00 19 21 T	186
97 99 33	138	25 08 160 SBA	145	98 03 04	154	98 37 16	157	98 55	159	00 19 19 V03	175	00 19 25	186
97 99 34	138	26 18 200 SBA	145	98 03 05	154	98 37 17	157	98 56	160	00 19 19 V04	175	00 19 30 15	187
97 99 35	138	26 28 200 SBA	145	98 03 08	154	98 37 19	157	98 56 09	160	00 19 19 V08	175	00 19 30 16	187
97 99 36	138	26 18 200 SBA	145	98 03 10	154	98 37 5/16"	157	98 62 01	160	00 19 19 V09	175	00 19 34 1	187
97 99 37	138	26 28 200 SBA	145	98 04 08	154	98 37 3/8"	157	98 62 02	160	00 19 19 V10	175	00 19 34 2	187
97 99 38	138	70 08 160 SBA	146	98 04 17	154	98 37 7/16"	157	98 64 02	160	00 19 19 V11	175	00 19 34 4	188
97 99 40	138	70 08 180 SBA	146	98 04 19	154	98 37 1/2"	157	98 65 01	161	00 19 19 V12	175		
97 99 41	138	74 08 200 SBA	146	98 05 13	154	98 37 9/16"	157	98 65 02	161	00 19 19 V13	175		