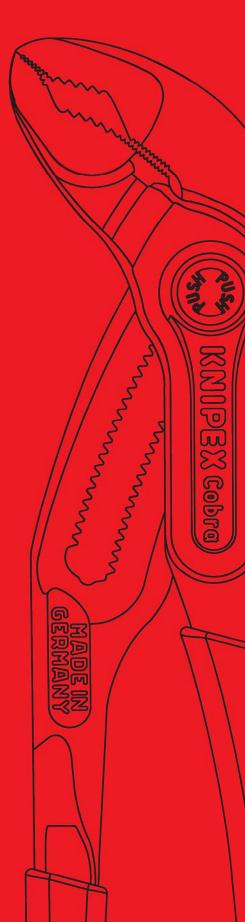
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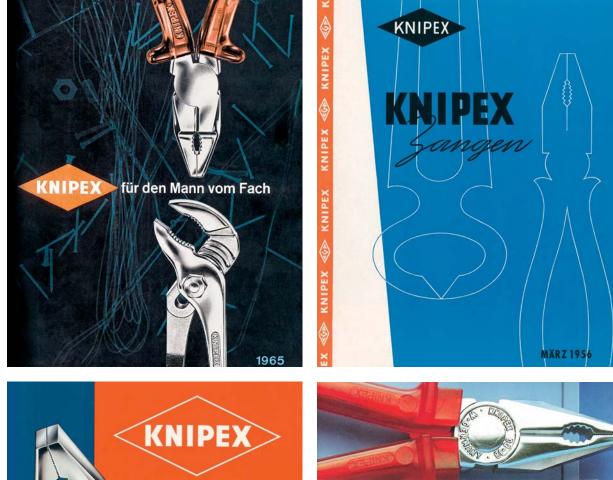
DIGENS MADE IN GERMANY SINCE 1882

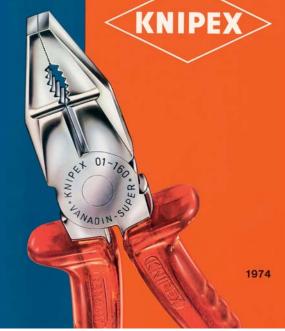


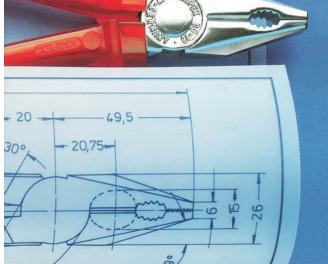
The pliers company

KNIPEX Quality – Made in Germany

KNIPE

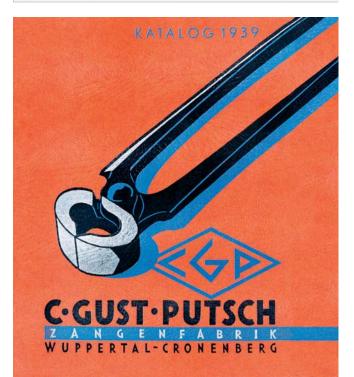






KNIPEX Pliers. German craftsmanship from design to production. Catalogue 1985 2nd edition





KNIPEX – the company behind the pliers.

For over 130 years and four generations, we have been working passionately on being the best manufacturer of pliers for our customers and users — with a clear focus, high demands and a constant flow of new ideas. Throughout the world, our brand enjoys a great deal of trust, and we aim to consistently meet and rebuild this.

Success is important to us, but is not something we look for at any price. We are guided by values, orientate our actions towards sustainability, and face up to our responsibility towards society and the natural environment in which and with which we live. We invest heavily in the efficiency of our location and the qualification of our employees, working today on the success of tomorrow and the day after that – so that we can also continue to be a strong and reliable partner in the future.

Yours, Ray Putch



Ralf Putsch, Managing Partner.

















KNIPEX pliers are different: ideas for more use and performance.

Ever better pliers – that is our guiding principle to which we devote all of our expertise and creativity. We are not satisfied with standard solutions, but rather continuously develop new and improved models that are better to work with and easier to use.

Working in this way means that sometimes we find unconventional solutions to situations, which then go on to set new benchmarks in the industry: novel methods of power transmission, easier and faster handling, combining various functions in a single tool and imaginative problem solvers for special applications. These save our users energy and time, giving them better work results with less effort.

In addition to major innovations, we work continuously on reworking our models in lots of small steps to improve their function, ergonomics and service life.

- 1 Compact force: CoBolt® XL two-hand operation for maximum cutting force.
- 2 Easy operation: Cobra® fast grip, precise adjustment, hold with self-locking.
- 3 Multifunctional: electrical installation pliers six functions in one pair of pliers.
- 4 Universal cutting force: X-Cut[®] the first high leverage diagonal cutters with box joint and precision cutting edges.
- 5 Speed and versatility: pliers wrench screws, holds, bends and presses without damaging materials.
- 6 High performance cutting edges: TwinForce[®] high strength thanks to unique transmission.
- 7 End cutting nippers redefined: bolt end cutting nippers light, slim, cut directly on the pivot point.
- 8 Problem-solver: spring hose clamp pliers the only pliers for all clamps; apply safely from all angles.

Step by step: from idea to product.

A large number of steps lie between an initial idea and the finished product. We never lose sight of the fact that every new or further development must represent a noticeable improvement for the user. We deploy the most up to date technologies and processes when putting our ideas into practice.

We begin by carefully establishing the requirements and selecting the best concepts. The tool is constructed on a computer, and the function is simulated with the help of special software. This is followed by the first models made on a 3D printer and by milling and extensive tests on steel prototypes – naturally in close dialogue with experienced users. The first products manufactured using series production processes are subjected to further extensive tests – under conditions far more stringent than normal load.



The locking mechanism on the spring hose clamp pliers permit simple and safe work, even with closed clamps. Modern CAD technology simulates the mechanism on the screen.

Filip Marovic, project manager for KNIPEX Product Development – "It can be seen repeatedly during the development cycles how important even the smallest detail can be. This is the very thing that motivates me to find creative new solutions. During the process we also take new technical possibilities in processing technology and materials into consideration."

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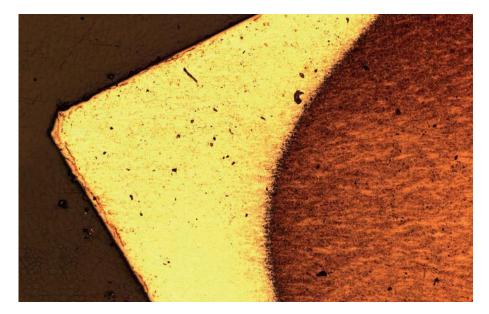
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53

Core qualities: steel – and what we make from it.

You can expect a great deal more from a pair of KNIPEX pliers. This starts with the material. Because the many models of pliers in our range are designed for different requirements and loads, we use steel alloys that have been specially selected for the application and rolled according to our high specifications. Long lasting cutting capability when working with very hard wires, strength when working with high torque loads, and good resistance to corrosion are examples of these targets.

The respective materials are then given their specific molecular structure in a number of coordinated heat treatment steps to produce the optimal relationship between hardness and toughness. These processes allow us to achieve the high degree of reliability, durability and service life that are the very definition of KNIPEX pliers.



Macro image of a cutter after induction hardening. The specially hardened cutter area (light) is in sharp contrast to the softer structure of the body of the pliers (dark).





Handles of the "Alligator® water pump pliers" being forged under the hydraulic double-acting hammer.

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I. I. I. I. I. I.

This is how our pliers are given their shape: hot and under high pressure.

Forging as a forming process is an old cultural technique and continues to hold fascination today. With an impact of up to five tonnes, the yellow glowing piece of steel is pounded in the upper and lower die at a temperature of 1,250°C. This gives it its basic shape and simultaneously a well-compacted structure.

The production of the forging die in our toolmaking works requires a great deal of experience and high precision, as this raw component will be crucial to the subsequent quality of the pliers. The contours of the forged component are milled at processing centres in the hardened and high strength die block.



Forging die for the high leverage diagonal cutters with forged-in axle.

The technology behind the pliers: machines made by KNIPEX.

All tools can only be as good as the production technology used to manufacture them. In other words, there can be no superior products without advances in production processes.

Due to our specialisation, we can focus on the technologies needed to produce high quality pliers efficiently. We have more than 400 machines, built with the specialised knowledge of generations. We build many of the machines ourselves or adapt machines precisely to our high standards using components we have manufactured. We even programme the software for the control and operation of the machinery ourselves in many cases.

From the product idea to the despatch of the finished pliers to our customers: everything is done under one roof. In this way we can directly influence all steps of value creation ourselves in terms of quality and efficiency, and make continuous improvements. Short paths and direct dialogue simplify coordination of processes and communication between employees.



We ensure our high standards by developing our own processes and machinery.

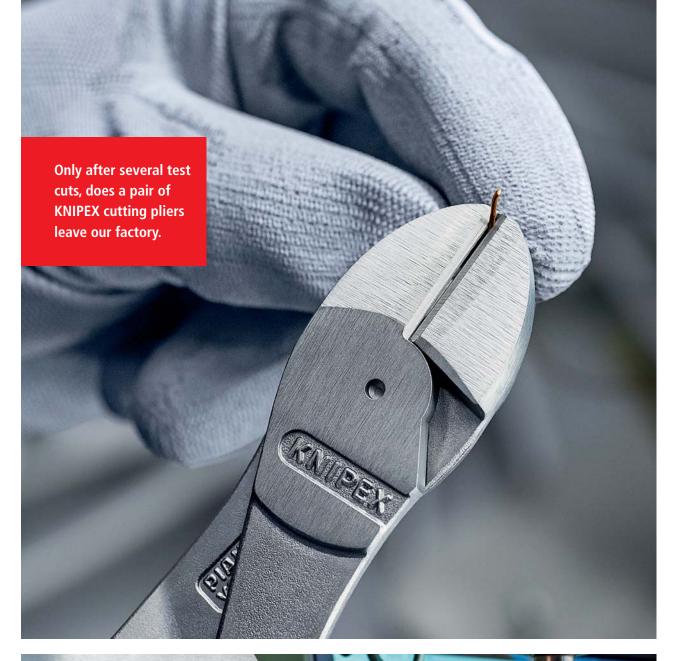




Efficiently coordinated processes and machinery.

Over 45,000 pairs of different models of pliers leave our factory every day.







We take it very literally: 100% reliability.

The precision of pliers is essential for their function: without accuracy there can be no reliable cutting, gripping and shaping, and also no zero backlash. The tight tolerances, which we make sure are complied with through the use of modern production technology, enable us to meet our stringent quality specifications.

We ensure compliance through strict measurements and diverse inspections — both after the various production steps and at the end of the entire process. To do this we use the most up-to-date measurement technology and endurance test plants — as well as the practical component test by hand.



Shape and roughness of the diagonal cutter's cutting edge are precisely measured with an optical 3D measuring system.

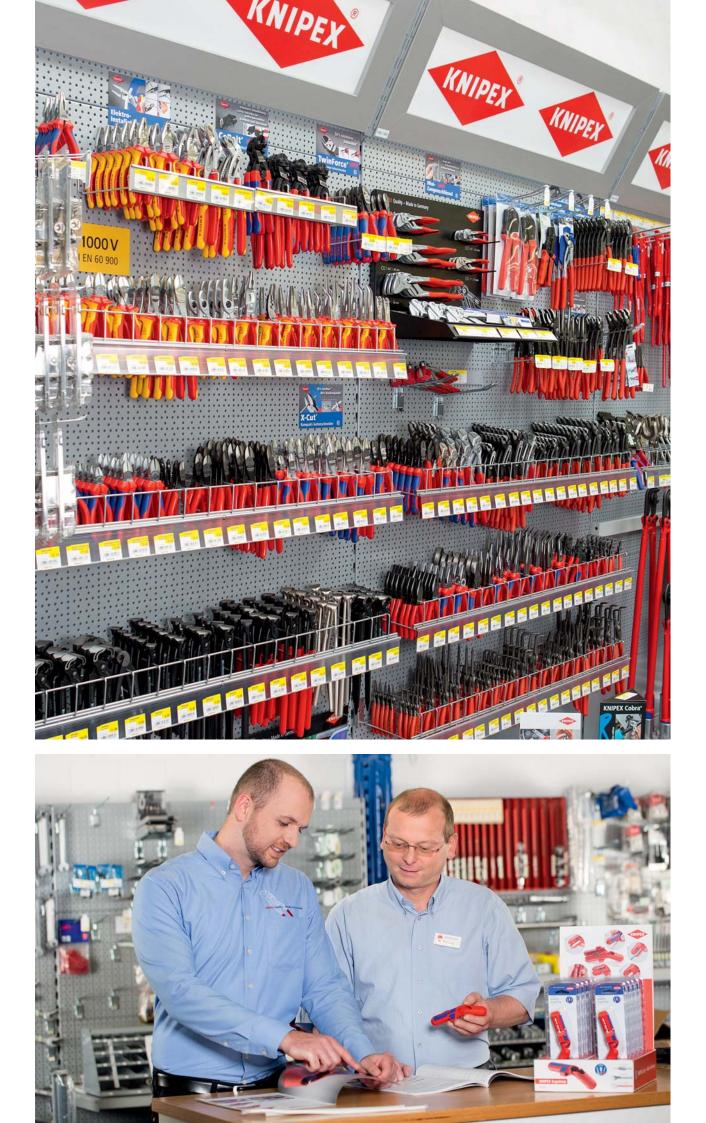
More than excellent pliers: what else you can expect from us.

Quality does not stop with the product. Trust, reliability and a collaborative approach define our business relationships — with consistent customer orientation, good service and competent field staff. We provide advice and training, and supply you with extensive digital product data whose format we adapt to your specific requirements. Added to this are diverse possibilities for sales support.

You will not find the breadth and depth of our range with any other manufacturer worldwide — so that your customers can always find the tool they are looking for.



We also present the breadth and depth of our range at in-house exhibitions and open days.











At home in the world: locations in more than 100 countries for you.

KNIPEX is the global pliers brand. We are present in all continents, with a dense network of customers, representatives and branches. In order to be closer still to our retailers and be able to give them even better support, we are further extending our international activities all the time.

There is no substitute for direct contact, which is why we are there for you personally at more than 100 trade fairs each year. On platforms and with the help of the most varied media – classic and digital – we provide comprehensive information about our range and application opportunities in over 30 languages.



We make up to date information available digitally in several languages on all usual channels.

The key factor: our employees.

The most important basis of our success is our employees. Their knowledge and skills, their dedication and their ideas are crucial to our efficiency and thus to our future.

As a company, we are a social community. We want to shape our culture in such a way that allows our employees to participate and identify through their work but also as individuals. We create good conditions for our employees to develop their potential, to obtain further qualifications and to stay healthy. It is also important to us that our employees are able to successfully balance family and career

We invest a significant amount of both expense and care in the training of young people, but also impart a wide spectrum of professional and personal skills to other employees.



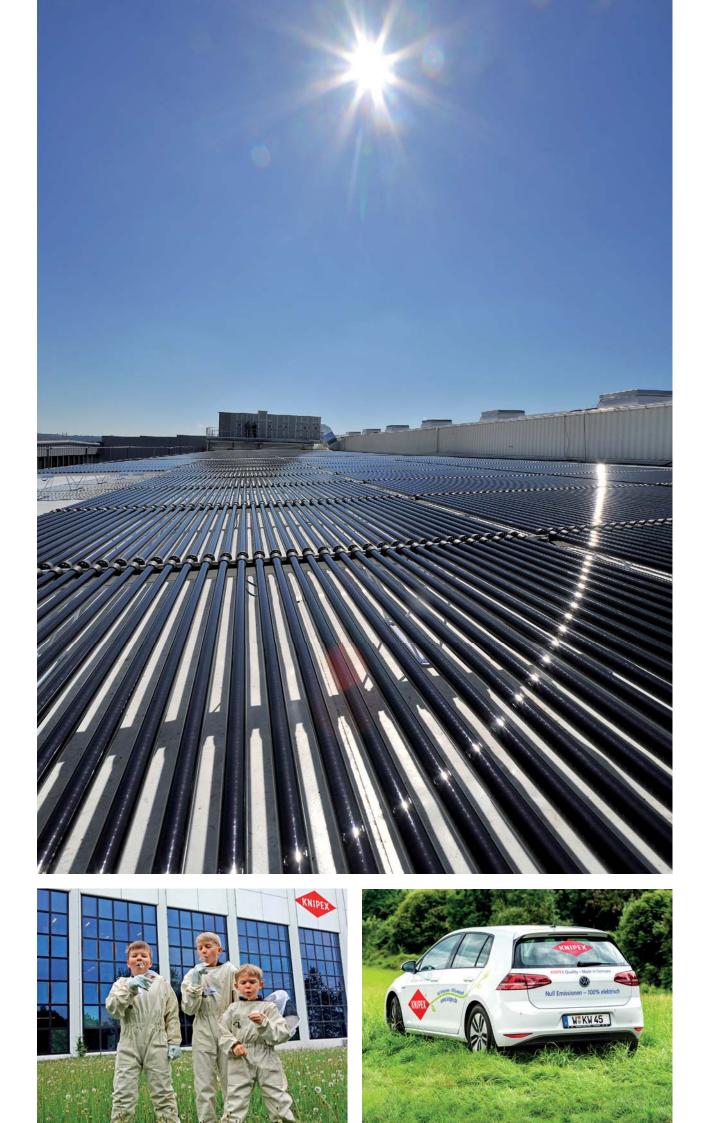
Our junior staff obtain their qualifications in our own modern training workshop.











Acting responsibly – sustainable management.



As a company, we believe we share responsibility for our natural environment and the well-being of society. We interact with both in various ways. We consume resources, but take care to use them as carefully as possible, and want to make a contribution to ensuring that they are available to future generations in the same or where possible a better form.

Our ecological objectives include a continuous reduction in our energy consumption, reduction in the volumes of waste and caring for the biodiversity at our site. In addition, we participate in major climate protection projects.

Companies should also be good citizens. We support numerous institutions and organisations from the areas of education and culture. We maintain a close exchange with schools and universities, and strengthen civic engagement in our region in diverse ways.



We support the Bergische music school in the "Singpause" project which, with the help of specially trained teachers, communicates the foundations of music and pleasure at singing together in schools.

At a glance

Overview of products

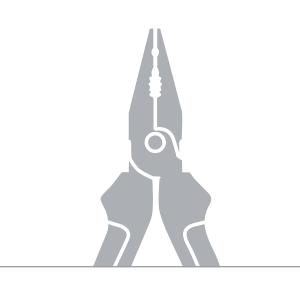
26	Combination and Multifunctional Pliers Combination Pliers Pliers for Installation Round Nose and Flat Nose Pliers	0
40	Wire Strippers and Dismantling Tools Insulation Strippers with adapted blades MultiStrip 10 Dismantling Tools	
58	Gripping and Grip Pliers Flat Nose Pliers Round Nose Pliers Grip Pliers	
70	Circlip Pliers Circlip Pliers Precision Circlip Pliers Circlip Pliers Sets	©
84	Carpenters' Pincers and Concreters' Nippers Carpenters' Pincers Concreter's Nippers High Leverage Concreters' Nippers	to large
90	Cutting Pliers Diagonal Cutters Bolt Cutters End Cutting Nippers	<u>R</u>
110	Pipe Wrenches and Water Pump Pliers Pliers Wrenches Cobra [®] Alligator [®] Pipe Wrenches	50
130	Special Pliers and Control Cabinet Keys Pipe Cutters Spring Hose Clamp Pliers Magnetic LED Lamp Control Cabinet Keys	- 0-
152	Cable and Wire Rope Shears Cable Shears Cable Cutters with ratchet action Wire Rope Shears	Ô
164	Crimping Pliers and Crimp Assortments Crimp System Pliers PreciForce [®] Cable Connectors	
192	Insulated Tools Pliers Wrenches Screwdrivers Sets	
232	Electronics Pliers and Precision Tweezers Cutting Pliers Gripping Pliers Precision Tweezers	0
254	Pliers with tether attachment point for mounting a fall protection	Contraction of the second seco
258	Tool Assortments and Tool Cases Pliers Sets Tool Bags Tool Cases	
274	Index / Article Number Index Pliers-ABC	

Combination and Multifunctional Pliers

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Combination Pliers	28
High Leverage Combination Pliers	29
Needle-Nose Combination Pliers	30
Mini Combination Pliers	32
"Lineman's Pliers"	33
Pliers for Electrical Installation	34
Electricians' Pliers	36
Round Nose Pliers with cutting edge (Jewellers' Pliers)	37
Flat Nose Pliers with cutting edges (Precision Mechanics Pliers)	37
Snipe Nose Pliers with centre cutter (Telephone Pliers)	37
Snipe Nose Side Cutting Pliers (Radio Pliers)	38
Snipe Nose Side Cutting Pliers (Stork Beak Pliers)	39



Combination Pliers DIN 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 edges additionally induction hardened, cutting edge hardness approx. 60 HRC
- > Special tool steel, forged, multi stage oil-hardened





03







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							Cutting capacities				
Article No.	EAN 4003773-	∢ ► mm		Pliers	Head	Handles	Ømm	Ømm	Ø mm	mm ²	۵'ک g
03 01 140	015192	140					2.8	1.8	9.0	10	112
03 01 160	013235	160					3.1	2.0	10.0	16	187
03 01 180	013242	180		black atramentized	polished	plastic coated	3.4	2.2	12.0	16	216
03 01 200	013259	200	-				3.8	2.5	13.0	16	276
03 01 250	015222	250					3.8	2.5	15.0	25	489
03 02 160	023203	160		black atramentized polished with multi-component grips		3.1	2.0	10.0	16	223	
03 02 180	023197	180			polished	with multi-component grips	3.4	2.2	12.0	16	254
03 02 200	034940	200					3.8	2.5	13.0	16	322
03 05 140	039730	140					2.8	1.8	9.0	10	139
03 05 160	039518	160		chrome plated		with multi-component grips	3.1	2.0	10.0	16	222
03 05 180	034933	180				with main-component grips	3.4	2.2	12.0	16	254
03 05 200	041146	200					3.8	2.5	13.0	16	324
03 06 160	021902	160	A 1000 V				3.1	2.0	10.0	16	228
03 06 180	021926	180	AC	chrome plated		insulate with multi-component grips, VDE-tested	3.4	2.2	12.0	16	264
03 06 200	033776	200					3.8	2.5	13.0	16	326
03 07 160	015307	160					3.1	2.0	10.0	16	254
03 07 180	015314	180	A 1000 V A €	chrome plated		with dipped insulation,	3.4	2.2	12.0	16	285
03 07 200	015321	200				VDE-tested	3.8	2.5	13.0	16	339
03 07 250	015345	250					3.8	2.5	15.0	25	597

High Leverage Combination Pliers DIN ISO 5746

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02 01 180

02 02 180

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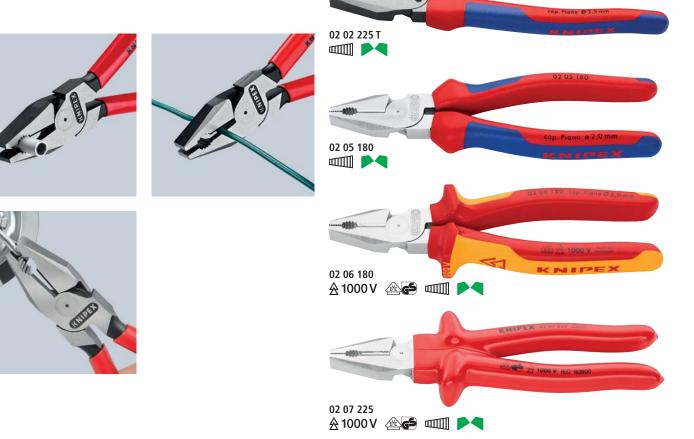
35 % less effort required than with conventional combination pliers

With cutting edges (hardness approx. 63 HRC) for heavy duty

- > easier work due to optimised leverage
- > easier cutting, powerful gripping, bending and pulling
- > long cutting edges for thicker cables
- > with gripping zones for flat and round material, suitable for versatile use
- > High-grade special tool steel, forged, multi stage oil-hardened

02 02 225 T*

pliers with tether attachment point for mounting a fall protection



								5			
Article No.	EAN 4003773-	∢ ► mm		Pliers	Head	Handles	Ø mm	Ømm	Ømm	mm ²	۵'ک g
02 01 180	033134	180			Ticuu		2.5	2.0	11.5	16	202
02 01 200	039679	200		black atramentized	polished	plastic coated	2.8	2.2	13.0	25	298
02 01 225	013198	225			F		3.0	2.5	14.0	25	358
02 02 180	034896	180					2.5	2.0	11.5	16	240
02 02 200	034902	200	-	black atramentized	polished	with multi-component grips	2.8	2.2	13.0	25	342
02 02 225	043379	225					3.0	2.5	14.0	25	409
02 02 225 T	079934	225	-			with multi-component grips and integrated tether attachment point	3.0	2.5	14.0	25	413
02 05 180	043072	180					2.5	2.0	11.5	16	238
02 05 200	043089	200		chrome plated		with multi-component grips	2.8	2.2	13.0	25	342
02 05 225	010005	225					3.0	2.5	14.0	25	400
02 06 180	010012	180	A				2.5	2.0	11.5	16	247
02 06 200	010029	200	Ê 1000 V @ € ■■■■■■	chrome plated		insulate with multi-component grips, VDE-tested	2.8	2.2	13.0	25	343
02 06 225	010036	225					3.0	2.5	14.0	25	401
02 07 200	022299	200	会1000V @ €	chrome plated		with dipped inculation VDE tested	2.8	2.2	13.0	25	380
02 07 225	022305	225		chiome plated		with dipped insulation, VDE-tested		2.5	14.0	25	486

* Other tools with tethering can be found from page 254 ff



Needle-Nose Combination Pliers DIN ISO 5746

08

Small High Leverage Combination Pliers with pointed jaw. For all common installation and repair work.

Handy use when working in confined areas thanks to slim head design and pointed jaws (anti-twist)

Gripping surfaces with special convex contour on one side for secure gripping of flat parts

Milled groove in the gripping area permits small parts such as nails, pins and bolts to be held and pulled

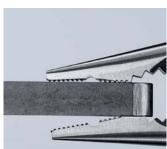
> the reliable and diverse combination pliers when out and about

- > long service life and stable tips
- > High-grade special tool steel, forged, multi stage oil-hardened

08 22 145 T*

pliers with tether attachment point for mounting a fall protection





Firm grip also on flat material due to three-point rest

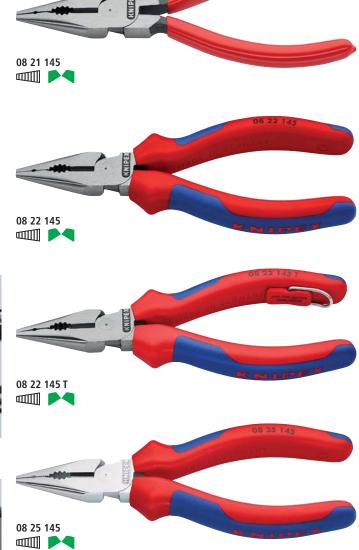




Easy cutting thanks to the high leverage joint



Tips remain dimensionally stable also in case of major torsional forces





							Cutting capacities				
Article No.	EAN 4003773-	∢ ► mm		Pliers	Head	Handles	Ø mm	Ø mm	Ø mm	mm ²	۲ ع
08 21 145	078951	145		black atramentized	polished	plastic coated	3.0	2.0	8.0	16	116
08 22 145	078968	145		black atramentized	polished	with multi-component grips	3.0	2.0	8.0	16	148
08 22 145 T	080640	145		black atramentized	polished	with multi-component grips and integrated tether attachment point	3.0	2.0	8.0	16	152
08 25 145	078975	145		chrome plated		with multi-component grips	3.0	2.0	8.0	16	148
08 26 145	079361	145	≜ 1000 V @€	chrome plated		insulate with multi-component grips, VDE-tested	3.0	2.0	8.0	16	154

Combination Pliers Chrome Vanadium DIN ISO 5746 IEC 60900 DIN EN 60900 01 > for heaviest duty > with gripping zones for flat and round material, suitable for versatile use > with cutting edges for soft, hard and piano wire

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£1000V @ € 💷

- > long cutting edges for thicker cables
- > cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC
- > particularly wear resistant gripping jaws; hardness of the gripping jaws approx. 53 HRC
- > Chrome vanadium heavy-duty steel, forged, multi stage oil-hardened

							Cutting capacities					
	EAN	∢ —▶							•	52		
Article No.	4003773-	mm		Pliers	Handles	Ømm	Ømm	Ømm	mm ²	g		
01 06 160	040729	160	£ 1000 V @ 🚰	chromo platad	insulated with multi-component grips	2.0	1.5	10.0	16	201		
01 06 190	040415	190		chrome plated 1		2.5	2.0	13.0	25	320		

08

Mini Combination Pliers

> compact combination pliers for professionals and hobbyists

- > with gripping zones for flat and round material,
- suitable for versatile use
- > with cutting edges for soft and hard wire
- > cutting edges additionally induction hardened, cutting edge hardness approx. 60 HRC
- > Vanadium steel, forged, multi stage oil-hardened



					Cutting capacities				
	EAN	∢ —▶					•		52
Article No.	4003773-	mm	Pliers	Handles	Ømm	Ømm	Ømm	mm ²	g
08 05 110	034957	110	chrome plated	with multi-component grips	2.5	1.6	9.0	10	85



Lineman's Pliers DIN ISO 5746 ASME B107.20

American style

High transmission ratio for easy cutting

Requires 50 % less effort compared with conventional combination pliers due to an optimised transmission ratio

09

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09 02 240

09 02 240 T

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09 11 240

09 12 240 T

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- > solid construction for heaviest strain; universally applicable
- > ergonomically optimised handle shape for firm contact to the hand and fatigue reducing operation
- > particularly effective cross-hatched knurled gripping zone in the jaws – for strong gripping and pulling
- > additional gripping zone below the joint for powerful leverage and pressing performance
- > with cutting edges for soft and hard wire
- cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC
- > Vanadium steel, forged, multi stage oil-hardened

09 11 240 / 09 12 240 / 09 12 240 T*

with fish tape puller in the joint gap; with universal mandrel crimping point below the joint

09 02 240 T / 09 12 240 T*

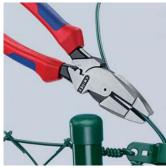
pliers with tether attachment point for mounting a fall protection



Gripping zone below the joint for powerful leverage



Cross-hatched, knurled gripping zone for firm gripping and pul ing, e. g. for fence construction



Long cutting edges for cutting flat cables



09 11/12 240: universal mandrel crimping area below the joint



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

						Cutting		
Article No.	EAN 4003773-	∢ → mm	Pliers	Head	Handles	Ø mm	Ø mm	۲ <mark>۵</mark>
09 01 240	064992	240	black atramentized	polished	with non-slip plastic coating	4.6	3.0	435
09 02 240	065005	240			with multi-component grips	4.6	3.0	470
09 02 240 T	079941	240	black atramentized	polished	with multi-component grips and integrated tether attachment point	4.6	3.0	474
09 11 240	071952	240	black atramentized	polished	with non-slip plastic coating	4.6	3.0	435
09 12 240	071969	240			with multi-component grips	4.6	3.0	470
09 12 240 T	079958	240	black atramentized	polished	with multi-component grips and integrated tether attachment point	4.6	3.0	474

* Other tools with tethering can be found from page 254 ff

Pliers for Electrical Installation

The all-rounder for professionals

Multifunctional pliers for the electrical installation; to grip flat and round material, for bending, deburring, cutting cable, stripping and crimping end sleeves (ferrules) 6 functions in one pair of pliers

- > smooth surfaces near the tips grip single cores 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 conductors of ~0.75 $1.5~mm^2$ and $2.5~mm^2$ crimp die for wire-end ferrules 0.5 $2.5~mm^2$
- > cable shears with (induction-hardened) precision cutting edges for copper and aluminium cables up to 5 x 2.5 mm² / dia. 15 mm
- > slim dimensions for easy access
- > bolted joint: precise, zero backlash operation of pliers
- > High-grade special tool steel, forged, multi stage oil-hardened

13 82 200 T*

pliers with tether attachment point for mounting a fall protection

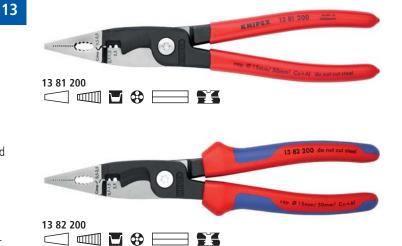














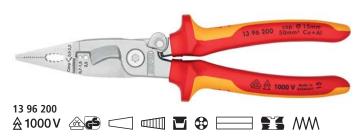


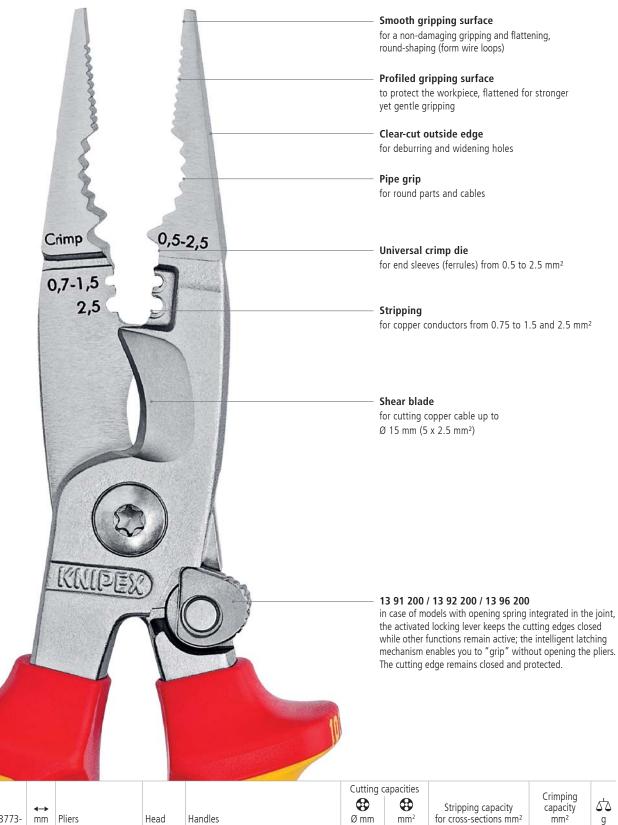




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A (* 1. NI	EAN	∢ —►				B	₿.	Stripping capacity	capacity	52
Article No.	4003773-	mm	Pliers	Head	Handles	Ømm	mm ²	for cross-sections mm ²	mm ²	g
13 81 200	075240	200	black atramentized	polished	plastic coated	15	50	0.75 - 1.5 / 2.5	0.5 - 2.5	265
13 82 200	075080	200	black atramentized	polished	with multi-component grips	15	50	0.75 - 1.5 / 2.5	0.5 - 2.5	280
13 82 200 T	079972	200	black atramentized	polished	with multi-component grips and integrated tether attachment point	15	50	0.75 - 1.5 / 2.5	0.5 - 2.5	284
13 86 200	075097	200	chrome plated		insulate with multi-component grips, VDE-tested	15	50	0.75 - 1.5 / 2.5	0.5 - 2.5	280
13 91 200	075257	200	black atramentized	polished	plastic coated	15	50	0.75 - 1.5 / 2.5	0.5 - 2.5	265
13 92 200	075103	200	black atramentized	polished	with multi-component grips	15	50	0.75 - 1.5 / 2.5	0.5 - 2.5	280
13 96 200	075110	200	chrome plated		insulate with multi-component grips, VDE-tested	15	50	0.75 - 1.5 / 2.5	0.5 - 2.5	280

MULTIFUNCTIONAL PLIERS

Electricians' Pliers

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

13 05 160 T*

pliers with tether attachment point for mounting a fall protection













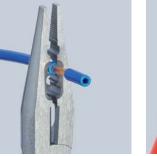




Gripping





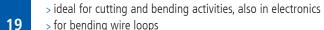




Crimping 0.5 to 2.5 mm²

						Cutting c	apacities		
Article No.	EAN 4003773-	∢ ► mm	Pliers	Head	Handles	Ø mm	Ø mm	Stripping capacities mm ²	۵ ^۲ ۵ g
13 01 160	034971	160	black atramentized	polished	plastic coated	2.5	1.6	0.5 - 0.75 / 1.5 / 2.5	112
13 02 160	010470	160	black atramentized	polished	with multi-component grips	2.5	1.6	0.5 - 0.75 / 1.5 / 2.5	139
13 05 160	071426	160	chrome plated		with multi-component grips	2.5	1.6	0.5 - 0.75 / 1.5 / 2.5	139
13 05 160 T	079965	160	chrome plated		with multi-component grips and integrated tether attachment point	2.5	1.6	0.5 - 0.75 / 1.5 / 2.5	143

Round Nose Pliers with cutting edge (Jewellers' Pliers) **DIN ISO 5743**



W4

Œ W3

13

D1

T1

- > for bending wire loops
- > precision-ground round jaws with fine, pointed tips

> for gripping and manipulating fine wires, e.g. in jewellery work

- > cutting edges additionally induction hardened, cutting edgehardness approx. 60 HRC
- > Vanadium steel, forged, multi stage oil-hardened

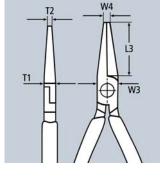


							Cutting o	apacities		Di	mensio	ons		
	EAN	∢ →							D1	L3	T1	W3	W4	5
Article No.	4003773-	mm		Pliers	Head	Handles	Ømm	Ømm	mm	mm	mm	mm	mm	g
19 01 130	034995	130	8	black atramentized	polished	plastic coated	2.2	1.6	1.0	32.0	8.0	13.5	2.0	73
19 03 130	014348	130	8	chrome plated		plastic coated	2.2	1.6	1.0	32.0	8.0	13.5	2.0	72

23

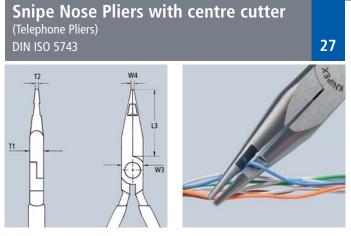
Flat Nose Pliers with cutting edges (Precision Mechanics Pliers) **DIN ISO 5745**

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





					Cutting c	apacities		Di	mensio	ns		
	EAN	∢ —▶			\bullet		T1	L3	W3	W4	T2	52
Article No.	4003773-	mm	Head	Handles	Ømm	Ømm	mm	mm	mm	mm	mm	g
23 01 140	041290	140	polished	plastic coated	2.5	1.6	7.0	35.0	12.5	3.0	4.5	75



- > for gripping and separating of single wires in harnesses
- > with centre cutter for soft wire
- > half-round jaws
- > knurled gripping surfaces
- > Chrome vanadium electric steel, forged, oil-hardened



							Di	mensio	ns		
	EAN	∢ —▶				L3	W3	T1	W4	T2	52
Article No.	4003773-	mm		Head	Handles	mm	mm	mm	mm	mm	g
27 01 160	016106	160	Θ	polished	plastic coated	47.0	16.5	9.5	3.0	2.0	120

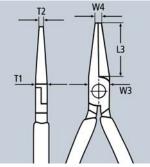
MULTIFUNCTIONAL PLIERS



- > suitable for finer gripping and cutting work
- > pointed, half-round jaws
- > knurled gripping surfaces
- > with cutting edges for soft, medium-hard and hard wire
- > cutting edges additionally induction hardened, cutting edge hardness approx. 61 HRC
- > Vanadium steel, forged, multi stage oil-hardened









T2,

L4

T1



					A	H ws									
							Cutting o	apacities			Dimer	nsions			
Article No.	EAN 4003773-	∢→ mm		Pliers	Head	Handles	Ø mm	Ø mm	L3 mm	L4 mm	W3 mm	T1 mm	W4 mm	T2 mm	۵ <u>م</u> g
25 01 125	015932	125					2.2	1.6	27.0		13.0	7.0	2.5	1.8	73
25 01 140	013082	140	$\Theta \blacksquare \blacksquare \blacksquare$	black atra- mentized	polished	plastic coated	2.5	1.6	42.0		15.0	8.0	2.5	2.0	89
25 01 160	013099	160		mentizeu			2.5	1.6	50.0		16.5	9.0	3.0	2.5	113
25 02 140	023159	140	$\Theta \blacksquare \blacksquare \blacksquare$	black atra-	polished	with	2.5	1.6	42.0		15.0	8.0	2.5	2.0	109
25 02 160	023166	160		mentized	polistieu	multi-component grips	2.5	1.6	50.0		16.5	9.0	3.0	2.5	144
25 03 125	043065	125	⊖■■►	chrome plated		plastic coated	2.2	1.6	27.0		13.0	7.0	2.5	1.8	72
25 05 140	035015	140		chrome		with	2.5	1.6	42.0		15.0	8.0	2.5	2.0	111
25 05 160	022817	160	$\Theta \blacksquare \blacksquare \blacksquare$	plated		multi-component grips	2.5	1.6	50.0		16.5	9.0	3.0	2.5	144
25 06 160	033806	160	≜ 1000 V @ € ⊖	chrome plated		insulated with multi-com- ponent grips, VDE-tested	2.5	1.6	50.0		16.5	9.0	3.0	2.5	146
25 21 160	015994	160	∡40° ⊖ ▶◀	black atra- mentized	polished	plastic coated	2.5	1.6	50.0	23.0	16.5	9.0	3.0	2.5	112
25 25 160	016007	160	∡40° ⊖ ▶◀	chrome plated		VDE-tested	2.5	1.6	50.0	23.0	16.5	9.0	3.0	2.5	143
25 26 160	052111	160	≜ 1000 V @ בַּ40° ⊖ יייוו וויי	chrome plated		insulated with multi-com- ponent grips, VDE-tested	2.5	1.6	50.0	23.0	16.5	9.0	3.0	2.5	144

25 26 160

≙1000 V @€ <u>∡40°</u> ⊖ আ∭ **▶**

MULTIFUNCTIONAL PLIERS

Snipe Nose Side Cutting Pliers (Stork Beak Pliers) DIN ISO 5745

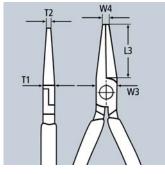
Elastic tips: dimensionally stable even when twisted

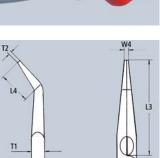
- > distortion-tolerant, elastic precision tips
- > half-round, long, pointed jaws
- > with cutting edges (hardness approx. 61 HRC) for soft, medium-hard and hard wire
- > Vanadium steel, forged, multi stage oil-hardened

26 12 200 T / 26 15 200 T / 26 22 200 T / 26 25 200 T*

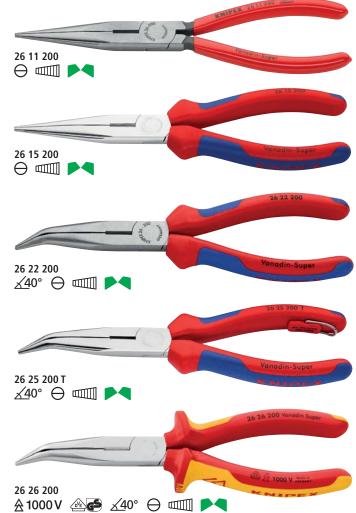
pliers with tether attachment point for mounting a fall protection







26



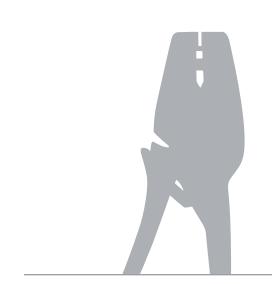
							Cutting o	apacities			Dime	nsions	5		
Article No.	EAN 4003773-	∢→ mm		Pliers	Head	Handles	Ø mm	Ø mm	L3 mm	L4 mm	T1 mm	W3 mm	W4 mm	T2 mm	۵'ک g
26 11 200	022824	200	\ominus \blacksquare	black atra- mentized	polished	plastic coated	3.2	2.2	73.0		9.5	18.0	3.0	2.5	170
26 12 200	023142	200	Θ	black atra- mentized	polished	with multi-component grips	3.2	2.2	73.0		9.5	18.0	3.0	2.5	201
26 12 200 T	079989	200	Θ	black atra- mentized	polished	with multi-component grips and integrated tether attachment point	3.2	2.2	73.0		9.5	18.0	3.0	2.5	205
26 13 200	040590	200	Θ	chrome plated		plastic coated	3.2	2.2	73.0		9.5	18.0	3.0	2.5	169
26 15 200	035022	200	⊖■■▶٩	chrome plated		with multi-component grips	3.2	2.2	73.0		9.5	18.0	3.0	2.5	198
26 15 200 T	035022	200	Θ	chrome plated		with multi-component grips and integrated tether attachment point	3.2	2.2	73.0		9.5	18.0	3.0	2.5	202
26 16 200	022831	200	≙ 1000 V ≧€ ⊖ আ∭ ►◀	chrome plated		insulated with multi-component grips, VDE-tested	3.2	2.2	73.0		9.5	18.0	3.0	2.5	206
26 17 200	016069	200	≙ 1000 V ≧ ⊖ আ∭ ► 1	chrome plated		with dipped insulation, VDE-tested	3.2	2.2	73.0		9.5	18.0	3.0	2.5	212
26 21 200	022848	200	<u>∡4</u> 0° ⊖ ≡⊒⊒ ►	black atra- mentized	polished	plastic coated	3.2	2.2	73.0	23.0	9.5	18.0	3.0	2.5	171
26 22 200	023135	200	<u>∡40°</u> ⊖ ∭ ►	black atra- mentized	polished	with multi-component grips	3.2	2.2	73.0	23.0	9.5	18.0	3.0	2.5	197
26 22 200 T	080008	200	<u>∡40°</u> ⊖ ≡≣⊒ ▶ ◀	black atra- mentized	polished	with multi-component grips and integrated tether attachment point	3.2	2.2	73.0	23.0	9.5	18.0	3.0	2.5	201
26 25 200	035039	200	∡40° ⊖ ∭ ►	chrome plated		with multi-component grips	3.2	2.2	73.0	23.0	9.5	18.0	3.0	2.5	199
26 25 200 T	080015	200	<u>∡40°</u> ⊖ ≡⊒⊒ ▶ ◀	chrome plated		with multi-component grips and integrated tether attachment point	3.2	2.2	73.0	23.0	9.5	18.0	3.0	2.5	203
26 26 200	022855	200	∰ 1000 V ∰ ג40° ⊖ תעוו דיק	chrome plated		insulated with multi-component grips, VDE-tested	3.2	2.2	73.0	23.0	9.5	18.0	3.0	2.5	204
26 27 200	016090	200	≜ 1000 V ఉ∉ ∡40° ⊖ আ≣ ►◀	chrome plated		with dipped insulation, VDE-tested	3.2	2.2	73.0	23.0	9.5	18.0	3.0	2.5	220

W

* Other tools with tethering can be found from page 254 ff

Wire Strippers and Dismantling Tools -D.D.3.

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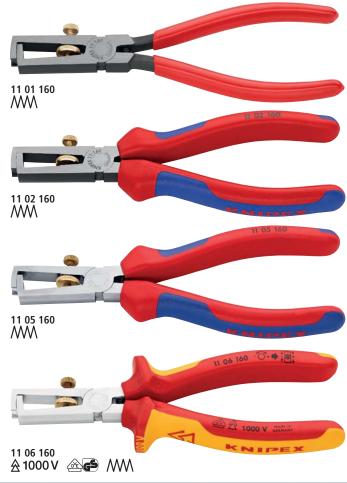
Insulation Strippers

- > for single, multiple and fine stranded conductors with plastic or rubber insulation max. 5.0 mm dia. or resp. 10 mm² cable cross section
- > easy adjustment to the required diameter of solid or stranded wire with knurled screw and lock nut
- > Special tool steel, forged, oil-hardened





11



	EAN	-					Stripping ca	pacities		47
Article No.	4003773-	mm		Pliers	Head	Handles	Ømm	mm ²	AWG	g
11 01 160	013556	160	MM	black atramentized	polished	plastic coated	5.0	10	7	131
11 02 160	023180	160	MM	black atramentized	polished	with multi-component grips	5.0	10	7	165
11 05 160	039570	160	MM	chrome plated		with multi-component grips	5.0	10	7	157
11 06 160	021933	160	£ 1000 V @€ \\\\	chrome plated		insulated with multi-component grips, VDE-tested	5.0	10	7	166
11 07 160	015499	160	<u> </u>	chrome plated		with dipped insulation, VDE-tested	5.0	10	7	180
11 12 160	034964	160		black atramentized	polished	with multi-component grips	5.0	10	7	156
11 17 160	015505	160	£ 1000 V 🖄 🚰	chrome plated		with dipped insulation, VDE-tested	5.0	10	7	181

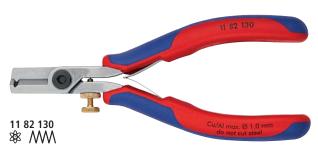
Electronics Wire Stripping Shears

11 8





- > for cutting and stripping single, multiple and fine-stranded conductors with up to 0.75 mm² cable cross-section
- > 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



	EAN	∢ —►				Stripping capacities	52
Article No.	4003773-	mm		Head	Handles	mm ²	g
11 82 130	071648	130	X\$X MM	polished	with multi-component grips	0.01 - 0.75	75

Electronics Wire Stripper

- > for single, multiple and fine stranded cables having a diameter from 0.1 up to 0.8 mm, 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 effective rust protection — no circuit faults caused by peeling chrome from plated tools
- > Special tool steel, forged, oil-hardened



	EAN	∢ ►				Stripping capacities	
Article No.	4003773-	mm		Head	Handles	Ømm	g
11 92 140	016908	140	X88 MM	mirror polished	with multi-component grips	0.1 - 0.8	99

11 9

Diagonal Insulation Strippers

With long cutting edges

High cutting capacity due to high leverage joint

- > precision stripping holes for single conductors of 1.5 and 2.5 \mbox{mm}^2
- > convenient cutting of NYM cables up to 5 x 2.5 $\rm mm^2$
- > long tips for ultra fine cutting work also in confined areas induction hardened precision blades,
- > cutting edge hardness approx. 60 HRC
- > Vanadium steel, forged, multi stage oil-hardened









elongated cutting edge





improved transmission ratio

									Cutting o	apacities	
Article No.	EAN 4003773-	∢ ► mm		Pliers	Head	Handles	Cutting capacities mm ²	AWG	Ø mm	Ø mm	۲۵ g
14 22 160	034988	160	P	black atramentized	polished	with multi-component grips	1.5 + 2.5	15 + 13	2.5	1.5	206
14 25 160	028697	160	/	chrome plated		with multi-component grips	1.5 + 2.5	15 + 13	2.5	1.5	206
14 26 160	040279	160	≙ 1000 V ﷺ	chrome plated		insulated with multi-component grips, VDE-tested	1.5 + 2.5	15 + 13	2.5	1.5	216

Precision Insulation Strippers with adapted blades

- > form-fit stripping also of difficult-to-remove insulating materials made of PTFE, silicone, Radox®, Kapton® and rubber; multi-layer too
- > a second pair of blades holds the remaining insulation reliably in place
- > replaceable shaped blade adapted precisely to the respective conductor cross-section
- > with length stop for constant stripping length during repetitive work
- > pliers body: steel
- > blade: special tool steel, oil-hardened



12 12 02 with cable guide and length stop



12

12

Precise cutting of the insulation to a complete extent





12 12 02

with additional cable guide for exact positioning of the cable in the stripping area of the blade $% \left({{{\rm{s}}_{\rm{s}}}} \right)$

12 12 11 / 12 12 12 for solar cables

specially adapted to multi-layered and RADOX $^{\odot}$ insulations; with additional cable support for a better centring of multi-layer insulated conductors in the stripping profiles

12 12 13 / 12 12 14

specially for cables according to US specifications (AWG)



Positive stripping thanks to precise shape of the blades

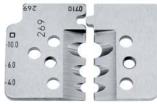
Maximum cable cross-section (in mm²) per profile:



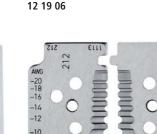
12 19 02



SOZ



12 19 12



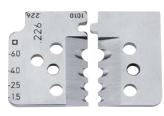
12 19 13



12 19 10



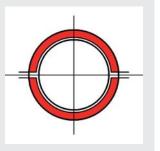
12 19 14



12 19 11

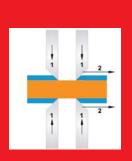
Principle of operation with adapted blades

Properly and precise stripping with an annular cut through the complete insulation. This is particularly important with conductors, which must be stripped precisely. This works without any problem even with difficult insulating materials made of PTFE, Radox[®] and multilayer insulations.



Precisely and reliably

Two pairs of blades (1) cut the insulation to a complete extent. Then the blade pairs move apart, and thus the insulation is removed form-fit (2). The pliers open automatically after the stripping procedure.

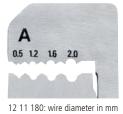


Article No.	EAN 4003773-	∢ ► mm		Pliers	Handles	Stripping capacities mm ²	AWG	۵ ^۲ ۵ g			
12 12 02	048077	195				0.03-0.09/0.14/0.38/0.57/1/1.5/2.08		447			
12 12 06	049005	195	MM	burnished	with multi-component grips	0.14-0.25 / 0.75 / 1.5 / 2.5 / 4 / 6		445			
12 12 10	049012	195				2.5 / 4 / 6 / 10		445			
12 12 11	062998	195		burnished	with multi component aving	1.5 / 2.5 / 4 / 6		449			
12 12 12	073758	195	MM	burnisned	with multi-component grips	4 / 6 / 10		450			
12 12 13	062998	195		humiched	with multi component aving		10 / 12 / 14 / 16 / 18 / 20	449			
12 12 14	062998	195	MM	burnished	with multi-component grips		16 / 18 / 20 / 22 / 24 / 26	450			
12 19 02	049036	1 Set o	of spare	blades for 1	2 12 02						
12 19 06	049043	1 Set o	, of spare	blades for 1	12 12 06						
12 19 10	049050	1 Set o	of spare	blades for 1	12 12 10						
12 19 11	063001	1 Set o	of spare	blades for 1	12 12 11						
12 19 12	073765	1 Set o	of spare	blades for 1	12 12 12						
12 19 13	077558	1 Set o	of spare	pare blades for 12 12 13							
12 19 14	077565	1 Set o	of spare	blades for 1	12 12 14						

12

Insulation Strippers with adapted blades





mm² 0.5 0.75 1.0 1.5 2.5 4.0 6.0

12 21 180: wire cross-sections in mm²

> with replaceable blades for 4 or 6 different conductor cross-sections

- > leave 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
- > a spring leads the stripper back to the starting position
- > pliers body: aluminium
- > blade: special tool steel, oil-hardened



	EAN	-				Stripping	capacities		52		
Article No.	4003773-	mm		Pliers	Handles	Ømm	mm ²	AWG	g		
12 11 180	000792	180			with plastic grips	0.5 / 1.2 / 1.6 / 2.0			368		
12 21 180	000815	180	MM	black lacquered			0.5 - 0.75 / 1 / 1.5 / 2.5 / 4 / 6	20 - 19 / 17 / 15 / 13 / 11 / 10	366		
12 19 180	12 19 180 022145 1 pair of spare blades for 12 11 180										
12 29 180	022152		pair of spare blades for 12 11 100								

45

KNIPEX MultiStrip 10 Automatic Insulation Stripper

12 42

Stripping without re-adjustment from 0.03 to 10 mm² Universal blade geometry – robust and more durable Ideal grip design with excellent haptics Recessed wire cutter

- > fully automatic adjustment to all single-, multi- and fine-stranded conductors with PVC insulation and a number of special insulation throughout the entire capacity range from 0.03 to 10 mm²
- > no manual fine adjustment necessary, no damage to the conductors
- > the clamping jaws made of steel hold the cable in a way that prevents slipping without damaging the remaining insulation
- > with recessed wire cutter for copper and aluminium conductors, multi-stranded up to 10 mm² and single-stranded up to 6 mm²
- > particularly smooth-running mechanics and very low weight
- > replaceable blades block and length stop
- > handle with soft-plastic zone for a steady grip
- > body: plastic, fibreglass-reinforced
- > blade: special tool steel, oil-hardened



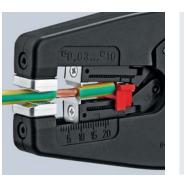
cables up to 10 mm²



Steel clamping jaws avoid skidding of the cable

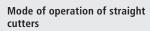


Precise stripping from 0.03 to 10 mm² without re-adjustment



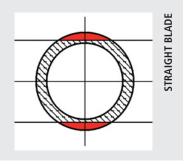
Patented mechanics

The incision depth of the stripping blade adjusts fully automatically to the diameter of the wire and accordingly also to the thickness of all standard insulating materials. There is no need for any manual adjustment which is still necessary when other conventional pliers with a wide wire-stripping range are used.



An incision is made in the red area only.

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



MultiStrip

	EAN 4003773-		Stripping capacities mm ²	AWG	۵'ک g					
12 42 195	054580	195 MM	0.03 - 10	32 - 7	136					
12 49 21	057581	Spare blades block for 12 42 195	Spare blades block for 12 42 195							
12 49 23	057604	Spare length stop for 12 42 195								



Self-Adjusting Insulation Strippers



12 40 200: Adjustable length stop

12 40 200

for thin ribbon cables up to 10 mm width in a single pass

- > for single, multiple and fine stranded conductors with plastic or rubber insulation
- > adapts automatically to the respective cable cross-section; prevents damage to the conductor
- > cutting depth can be adjusted for different insulation materials
- > with wire cutter for copper and aluminium wires, multiple stranded up to 10 mm² and single stranded up to 6 mm²
- > smoothly operating mechanism
- > stripping blades and clamping jaws easily replaceable
- > low weight

12

12 40 200: Precise stripping prevents damage

to the conductor

- > body: plastic, fibreglass-reinforced
- > blade: special tool steel, oil-hardened



12 40 200 MM

Article No.	EAN 4003773-	∢ ► mm		Stripping capacities mm²	AWG	Length stop mm	۲ _۵ ع						
12 40 200	026662	200	MM	0.03 - 10	32 - 7	3.0 - 18.0	202						
12 50 200	034407	200	MM	2.5 - 16	13 - 5		200						
12 49 01	026679	1 pair of spare blades for 12 40 200											
12 49 02	026686	1 pair	of spare clamping jaws f	or 12 40 200									
12 49 03	026693	Spare l	ength stop for 12 40 20	0									
12 49 04	053071	Torsior	n spring for 12 40/50 200)									
12 49 05	053088	Coil sp	ring in the head for 12 4	0/50 200									
12 59 01	034414	1 pair	pair of spare blades for 12 50 200										
12 59 02	034421	1 pair	of spare clamping jaws f	or 12 50 200	1 pair of spare clamping jaws for 12 50 200								

Automatic Insulation Stripper

12 62

- > compact standard tool at a favourable price for all current cable cross-sections and insulating materials
- > adapts automatically to the respective cable cross-section; prevents damage to the conductor
- > high operation comfort thanks to handy shape and low weight narrow head style for use in confined areas
- > with wire cutter for copper and aluminium wires up to 2.5 mm²
- > with adjustable length stop from 6.0 18.0 mm for cutting the same stripping lengths during repetitive work
- > body: plastic, fibreglass-reinforced
- > blades: special tool steel, oil-hardened, interchangeable

Article No. 12 62 180	EAN 4003773- 054573	 ←→ mm 180 	MM	Stripping capacities mm ² 0.2 - 6	AWG 24 - 10	∆'∆ g 151			
12 69 21 060093 1 pair of spare blades for 12 62 180 12 69 23 067115 Spare length stop for12 62 180									



Automatic Insulation Stripper for flat cable



> for PVC insulated flat cables up to a max. 12 mm wi	dth
and 0.75 to 2.5 mm ²	

- > adapts automatically to the various conductor heights; prevents damage to the conductor
- > long stripping lengths possible
- > blade replaceable
- > smoothly operating mechanism
- > low weight

12

64

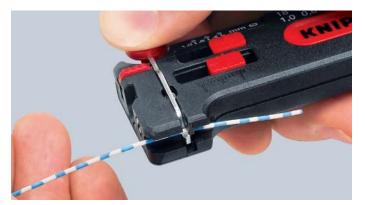
- > body: plastic, fibreglass-reinforced
- > blade: special tool steel, oil-hardened



Article No.	EAN 4003773-	∢ ► mm		Stripping capacities mm ²	AWG	۲ <mark>۵</mark>
12 64 180	073284	180		0.75 - 2.5	19 - 13	125
12 69 31	073932	1 pair o	of spare blades	for 12 64 180		

Mini Stripping Tool





Article No.	EAN 4003773-	∢ →→ mm		Stripping capacities Ø mm	AWG	۵ ^۲ ۵ g
12 80 040 SB	071655	100	MM	0.12 - 0.4	36 - 26	52
12 80 100 SB	043119	100	MM	0.30 - 1.0	28 - 18	34

MM

- > precise stripping, stepwise adjustment to the conductor diameters with wire cutter
- > adjustable length stop from 4.0 15.0 mm
- > with locking device
- > housing: plastic, impact-proof

12 80 040 SB

12 64 180

(*******

12

for thin copper conductors dia. 0.12 to 0.4 $\ensuremath{\mathsf{mm}}$

12 80 100 SB

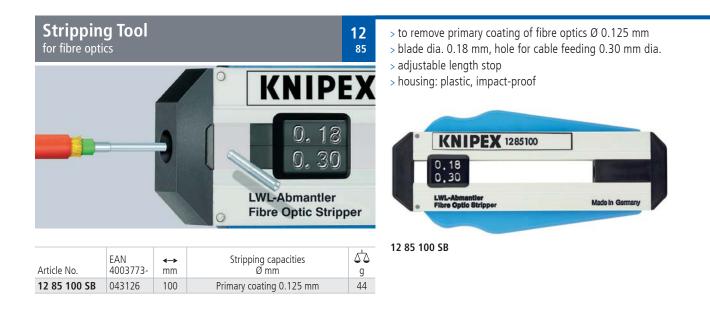
for thin copper conductors dia. 0.3 to 1.0 mm



12 80 100 SB



Article No.	EAN 4003773-	∢ ► mm	Pliers	Handles	Stripping capacities Ø mm	۵'۵ g
12 82 130 SB	050094	130	burnished	with plastic grips	primary-coating: 0.125 mm / secondary-coating: 0.250 mm	69



15

Stripping Tweezers for Coated Wire



9

- > 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



15 11 120

Article No.	EAN 4003773-	∢ → mm	Stripping capacities Ø mm	۵ <u>۵</u> ۵
15 11 120	015550	120	0.6	34
15 19 005	021551	1 pair o	f spare blades for 15 11 120, Ø 0.5 mm	
15 19 006	021568	1 pair o	f spare blades for 15 11 120, Ø 0.6 mm	
15 19 008	021575	1 pair o	f spare blades for 15 11 120, Ø 0.8 mm	
15 19 010	021582	1 pair o	f spare blades for 15 11 120, Ø 1.0 mm	

DISMANTLING TOOLS

Dismantling Pliers

Multifunctional – cutting, dismantling and stripping with one pair of pliers.

For time-saving dismantling and stripping of all common round and damp-proof installation cables (e.g. NYM cable)

Simplified access especially to deep mounted flush sockets thanks to slim head design and optimally angled cable sheath cutter

Strip cables easily and without damage thanks to circular cutting edge with depth limit

- > suitable for universal use: precision wire stripping holes for conductors from 1.5 and 2.5 mm²
- > with diagonal cutters for cutting and trimming conductors, wires, small screws and nails
- > all cutters additionally induction hardened to approx. 61 HRC for high wear resistance
- > 30% lighter than comparable pliers
- > Vanadium steel, forged, multi stage oil-hardened

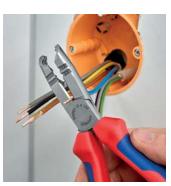




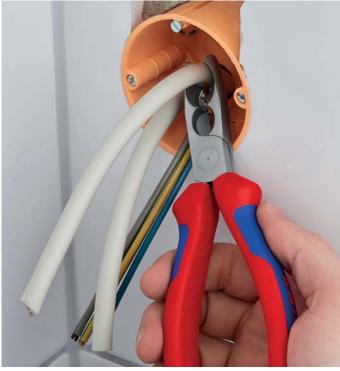
Stripping holes for conductors of 1.5 mm² and 2.5 mm²



Cutting cable up to 13 mm diameter

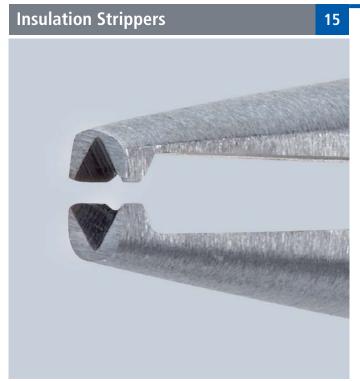


Cutting edges shortening of single wires



Dismantling deep down in a flush-mounted socket

Article No.	EAN 4003773-	←→ mm		Pliers	Head	Handles	Dismantling capacities Ø mm	Stripping capacities mm ²	Ø mm	Ømm	۲ <mark>۵</mark>
13 42 165	079675	165	P1	black atramentized	polished	with multi-component grips	8 - 13	1.5 / 2.5	3.2	2.2	176
13 45 165	079699	165		chrome plated		with multi-component grips	8 - 13	1.5 / 2.5	3.2	2.2	176
13 46 165	079910	165	▶ 🗙 🕹 1000 V 🖄 🛃	chrome plated		insulated with multi- component grips, VDE-tested	8 - 13	1.5 / 2.5	3.2	2.2	190



> for stripping thin cables

- > accurate boring to match diameter of wire, precise stripping prism; non-adjustable
- > with opening spring
- > Chrome vanadium electric steel, forged, oil-hardened



Article No.	EAN 4003773-	∢ ► mm		Head	Handles	Stripping capacities Ø mm	۵'ک g
15 51 160	044451	160	MM	polished	plastic coated	0,5	101
15 61 160	014843	160	MM	polished	plastic coated	0,6	102
15 81 160	015574	160	MM	polished	plastic coated	0,8	102





Article No.	EAN 4003773-	∢ —► mm		Stripping capacities Ø mm	۵'۵ g			
16 20 16 SB	060451	130	MM	4.0 - 16.0	95			
16 20 28 SB	060468	130	MM	8.0 - 28.0	95			
16 20 165 SB	043133	165 MM 8.0 -		8.0 - 28.0	85			
16 29 165 043 140 Spare blade 16 20 16 SB / 16 20 28 SB / 16 20 165 SB								

- > for stripping all common round cables
- > self-tightening holding lever
- > with adjusting screw for cutting depth adjustment
- > 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-proof

16 20 165 SB

with kn fe and hook blade, protective cap included



16 20 16 SB



16 20 165 SB

DISMANTLING TOOLS

Dismantling Tool



Setting the tool for circular cutting



Longitudinal cut



Spiral cutting

- > for dismantling round cable sheaths made of PVC, rubber, silicone or PTFE from 6.0 - 29.0 mm dia.
- > self-tightening 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

16

30

> housing: plastic, impact-proof



16 30 135 SB

Article No.	EAN 4003773-	∢— ► mm		Stripping capacities Ø mm	۵'۵ g					
16 30 135 SB	033349	135 MM 6.0 - 29.0								
46 20 425	007017	Currente	_ £							
16 39 135	027317	Spare b	Spare blade for 16 30 135 SB							

Dismantling Tool

- > for dismantling round cables exceeding 25.0 mm dia.
- > removes all kinds of insulation layers
- > suitable for longitudinal and circular cutting
- > cutting depth can be adjusted up to 5.0 mm
- > replaceable blade (both sides can be used)
- > tool body: plastic, fibreglass-reinforced





16 40 150



Setting the tool for longitudinal cut



Longitudinal cut



Turning the tool for circumferential cut



Circular cut





Adjustable cutting depth

Stripping Tool for coax cables

16 60

- > for stripping coax cables (RG 58, RG 59 and RG 62)
- > for stripping outer sheath, shield and insulation in a single process
- > with three built-in blades
- > the cutting depth of each blade can be adjusted individually
- by means of a hexagonal key (Allen key)
- > the blade spacing remains constant
- > housing: plastic, impact-proof



16 60 05 SB



3 stripping steps in one operation

Interior layers uncovered individually

Dismant ing of Coax-cable in three steps



	EAN	∢ →			52
Article No.	4003773-	mm		Cable type	g
16 60 05 SB	044888	105	MM	RG 58, RG 59 + RG 62	73

Wire stripping tool for coax and data cable

- > universal stripping tool for Coax cables RG 59, RG 6, RG 7, RG 11
- > for stripping outer sheath and interior insulation in a single process
- > adjustable stripping blade for data cable
- > two stripping blades for cutting and stripping telephone ribbon cable (4P/6P/8P) in a single operation
- > integrated blade for cutting data cables
- > housing: plastic, impact-proof



16 60 06 SB

16

60



	EAN	∢ —▶			52
Article No.	4003773-	mm		Cable type	g
16 60 06 SB	077961	125	MM	RG 59, RG 6, RG 7, RG 11	100

DISMANTLING TOOLS



Article No.	EAN 4003773-	∢→ mm		Stripping capacities Ø mm	۵ ^۲ ۵ g
16 60 100 SB	040811	100	MM	Coax-cables 4.8 - 7.5 mm round cables 3 x 0,75 mm ²	22

- > for dismantling and stripping all common coax cables between 4.8 - 7.5 mm dia. (e.g. for TV- and satellite antenna), also suitable for PVC round cable 3 x 0.75 mm²
- > with length scale 5.0 20.0 mm
- > double shell, folding back stripping tool
- > with opening spring and locking device
- > body: plastic, fibreglass-reinforced



Dismantling Tool for flat and round cables



- > for flat cables up to 12 mm in width
- > for dismantling and stripping all common round and damp-proof installation cables Ø 4.0 to 13.0 mm (e.g. NYM cable 3 x 1.5 mm² up to 5 x 2.5 mm²)
- > stripping device for cross-sections 0.8 / 1.5 / 2.5 mm² (AWG 20 / 16 / 14)
- > with opening spring and locking device
- > for use in confined and difficult to access work areas
- > also for use in conduit and distribution boxes
- > body: plastic, fibreglass-reinforced

16 64 125 SB



16

16

Dismantling Tool for data cables



- > for stripping UTP and STP data cables with diameters of 4.5 to 10.0 mm
- > stripping device for cross-sections 0.2 / 0.3 / 0.8 / 1.5 / 2.5 / 4 mm²
- > double shell, folding back stripping tool
- > with opening spring and locking device
- > practical clip for easy transport
- > body: plastic, fibreglass-reinforced
- > blades: special tool steel, oil-hardened, TiN-coated

16 65 125 SB MM

	EAN	-		Stripping	capacities		52
Article No.	4003773-	mm		Ømm	mm ²	Types of cables	g
16 65 125 SB	043157	125	MM	4.5 - 10.0	0.2 - 4	CAT 5, CAT 6, CAT 7, Twisted-Pair (UTP/STP)	50

DISMANTLING TOOLS

Universal Dismantling Tools

16 8

- > for dismantling and stripping all common round and damp-proof installation cables between 8 - 13 mm dia.
 (e.g. 3 x 1.5 mm² up to 5 x 2.5 mm²)
- > also for use in conduit and distribution boxes
- > double shell, folding back stripping tool
- > with opening spring and locking device
- > practical clip for easy transport
- > body: plastic, fibreglass-reinforced

16 85 125 SB

with additional blade for longitudinal cuts; telescopic blade inside; stripping device for cross-sections 0.2 / 0.3 / 0.8 / 1.5 / 2.5 / 4 mm²; with integrated cable guide for longitudinal cut. This enables rigid insulation (e.g. halogen-free) to be stripped more easily.



16 80 125 SB

16 85 125 SB

	EAN	-		Stripping capacities			5
Article No.	4003773-	mm		Ømm	mm ²	Types of cables	g
16 80 125 SB	040828	125	MM	8.0 - 13.0		round cable, e.g.: 3 x 1.5 mm ² up to 5 x 2.5 mm ²	71
16 85 125 SB	060444	125	MM	8.0 - 13.0	0.2 - 4.0	round cable, e.g.: 3 x 1.5 mm ² up to 5 x 2.5 mm ²	67

16

90

Universal Dismantling Tool for building and industrial cables



- > for dismantling and stripping all common round and damp-proof installation cables between 8.0 - 13.0 mm dia. (e.g. 3 x 1.5 mm² up to 5 x 2.5 mm²)
- > specially suitable for larger cross-sections and for difficult insulating materials
- > no adjustment of blades to cutting depth required
- > with opening spring and locking device
- > stripping device for conductors and strands 1.5 mm² and 2.5 mm²
- > two-way length stop (ideal for right and left-handers)
- > fastening device on the end of the handle (fall protection)
- > for use in confined and difficult to access work areas
- > also for use in conduit and distribution boxes
- > body: plastic, fibreglass-reinforced



16 90 130 SB

	EAN	4-		Stripping	capacities		52
Article No.	4003773-	mm		Ømm	mm ²	Types of cables	g
16 90 130 SB	076940	130	MM	8.0 - 13.0	1.5 + 2.5	round cable, e.g. 3 x 1.5 mm ² up to 5 x 2.5 mm ²	47

KNIPEX ErgoStrip[®] Universal Dismantling Tool

16 ⁹⁵ NEW

For the fast and precise dismantling and stripping of all common round and damp-proof installation cables (e.g. NYM cable 3 x 1.5 mm² up to 5 x 2,5 mm²), data cable (e.g. twisted pair) and coax cable Innovative, ergonomic pistol grip design for easy cutting,

- stripping and longitudinal cut of the sheath
 > conical, slimmed down tool ends for better access in
- confined areas > stripping device for cross-sections 0.2 / 0.3 / 0.8 / 1.5 / 2.5 and 4 mm²
- > simplified insertion of single wires for stripping using location ridges
- > with opening spring and locking device
- > easy insertion of coax and data cable thanks to opening aid
- > multi-component design with a soft plastic zone for comfortable use and a secure grip
- > housing made from stable plastic fibreglass-reinforced





ErgoStrip®





Dismant ing of a NYM cable

With concealed cutter in overhanging thumb rest on the side for convenient lengthwise cut

Stripping of single conductors



Dismant ing of a data cable



Dismantling of a coax cable



Stripping of a coax cable

					Stripping	capacities		
Article No.	EAN 4003773-	∢→ mm		Round cables Ø mm	Conductors and strands mm ²	Data cables	Coax-cables Ø mm	۵۵ g
16 95 01 SB	079927	135	MM	8 - 13	0.2 - 4	CAT 5 - 7, Twisted-Pair (UTP/STP)	4.8 - 7.5	95

Gripping and Grip Pliers

+ 28-280 Salary

GERMA

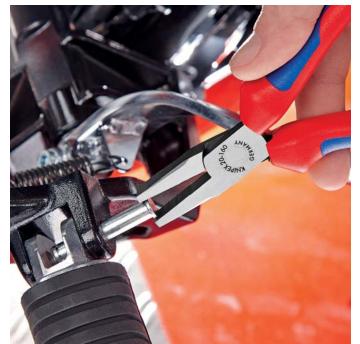
INS X

Flat Nose Pliers	60
Round Nose Pliers	61
Long Reach Needle Nose Pliers	61
Long Reach Needle Nose Pliers with transverse profiles	62
Telephone Pliers	63
Gripping Pliers (Needle Nose Pliers)	63
Long Nose Pliers	64
Relay Adjusting Pliers	65
Duckbill Pliers	65
Gripping Pliers for precision mechanics	66
Mechanics' Pliers	67
Universal Grip Pliers	68
Welding Grip Pliers	68
Grip Pliers	69

Flat Nose Pliers DIN ISO 5745

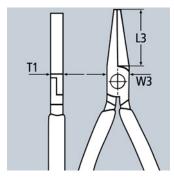
- > flat, short, wide jaws> knurled gripping surfaces
- > Special tool steel, forged, oil-hardened













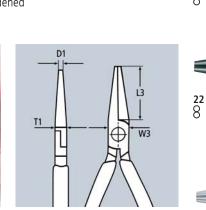
						Di	mensio	ns		
Article-No.	EAN 4003773-	∢ ► mm		Pliers	Head	Handles	L3 mm	W3 mm	T1 mm	۲ <mark>۵</mark>
20 01 125	014447	125					27.0	14.5	8.0	75
20 01 140	014454	140		black	nalishad	plastic coated	28.0	15.5	9.5	107
20 01 160	015017	160		atramentized	polished	plastic coated	30.0	17.0	9.5	144
20 01 180	015666	180					35.0	19.0	10.0	188
20 02 140	043386	140		black	polished	with multi-component grips	28.0	15.5	9.5	137
20 02 160	035008	160		atramentized	polisileu	with multi-component grips	30.0	17.0	9.5	172
20 05 140	042464	140		chrome plated		with multi-component grips	28.0	15.5	9.5	136
20 05 160	042457	160		chiome plated		with multi-component grips	30.0	17.0	9.5	176
20 06 160	033783	160	1000 V இ€ 	chrome plated		insulated with multi-component grips, VDE-tested	30.0	17.0	9.5	176

GRIPPING PLIERS

Round Nose Pliers

> for bending wire loops

- > round, short jaws; finely ground
- > Special tool steel, forged, oil-hardened



22

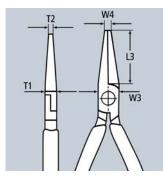


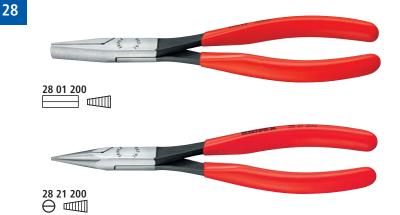
22 06 160 桧1000V ఊ€ 8 ⊂

								Dimer	Dimensions		
Article-No.	EAN 4003773-			Pliers	Head	Handles	L3	W3	D1	T1	
Article-No.	4003773-	mm		Pliers	неац	Handles	mm	mm	mm	mm	g
22 01 125	014461	125					27.0	14.5	2.0	8.0	75
22 01 140	013013	140		black atramentized polished	polished	shed plastic coated			2.5	9.5	100
22 01 160	015024	160		attamentizea			30.0	18.0	3.0	9.5	140
22 02 140	043430	140	8	black	nalishad	with multi component aving	28.0	16.5	2.5	9.5	129
22 02 160	023173	160	0	atramentized poils	polished	with multi-component grips	30.0	18.0	3.0	9.5	170
22 05 140	042891	140	0	chromo plated		with multi component gring	28.0	16.5	2.5	9.5	127
22 05 160	077275	160	8	chrome plated		with multi-component grips	30.0	18.0	3.0	9.5	169
22 06 160	033790	160	☆1000 V ﷺ 8 ◯	chrome plated		insulated with multi-component grips, VDE-tested	30.0	18.0	3.0	9.5	175

Long Reach Needle Nose Pliers DIN ISO 5743

- > specially suitable for gripping and assembly work with a higer prehensile power
- > knurled gripping surfaces
- > High-grade special tool steel, forged, oil-hardened





								Dimensions				
	EAN	∢ >					L3	W3	T1	W4	T2	52
Article-No.	4003773-	mm		Pliers	Head	Handles	mm	mm	mm	mm	mm	g
28 01 200	044468	200		black atramentized	polished	plastic coated	33.0	13.5	10.5	4.0	10.5	197
28 21 200	028246	200	Θ	black atramentized	polished	plastic coated	34.0	13.5	10.5	3.0	3.0	187

GRIPPING PLIERS

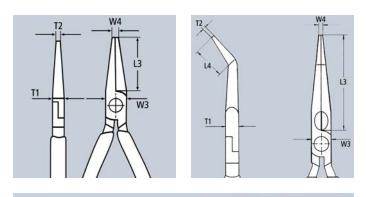
Long Reach Needle Nose Pliers with transverse profiles DIN ISO 9745

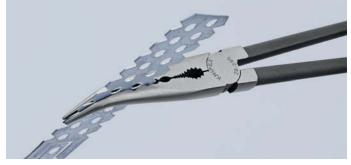
28

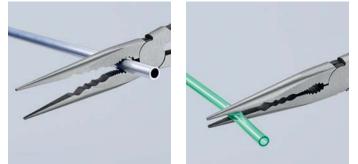
Long assembly pliers with wave profile

For gripping, adjustment and assembly work in hard to reach areas thanks to slim, very long design Deep parts can be easily reached using the slim, half-round tips

- > careful yet reliable gripping, holding and guiding of small copper pipes, screws and cables as well as other round parts thanks to milled grooves with smooth surfaces
- > serrated pipe grip to grip round parts
- > particularly suitable for work in the automotive trade and in mechanical engineering
- > slim yet robust tool
- > forged from special tool steel, oil-hardened and tempered







Wave-shaped gripping profile: transverse profile for gripping, holding and guiding





							Dimensions						
	EAN	→					L3	L4	W3	T1	W4	T2	52
Article-No.	4003773-	mm		Pliers	Head	Handles	mm	mm	mm	mm	mm	mm	g
28 71 280	079415	280		black atramentized	polished	plastic coated	76.5		20.0	9.0	3.0	2.5	235
28 81 280	079422	280	ЩЩ <u>∡4</u> 5°	black atramentized	polished	plastic coated	70.0	20.0	20.0	9.0	2.5	2.5	235

Telephone Pliers DIN ISO 5745

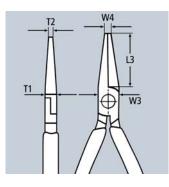
29

> gripping surfaces cross-hatched, knurled

> Chrome vanadium electric steel, forged, oil-hardened

29 21 160 / 29 25 160

extra slim, fine tips; also suitable for soldering work





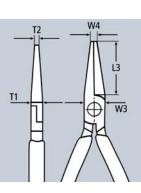
								Dimer	nsions			
	EAN	<->					L3	W3	T1	W4	T2	52
Article-No.	4003773-	mm		Pliers	Head	Handles	mm	mm	mm	mm	mm	g
29 11 160	016175	160		black atramentized	polished	plastic coated	55.0	14.0	8.0	2.5	8.5	103
29 21 160	043454	160	\ominus I I I I I I I I I I I I I I I I I I I	black atramentized	polished	plastic coated	54.0	14.0	9.0	2.0	2.0	112
29 25 160	043478	160	\ominus ∞	chrome plated		with multi-component grips	54.0	14.0	9.0	2.0	2.0	139

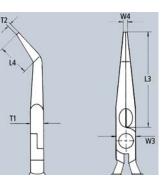




> precision pliers for very exact assembly, bending and adjusting work

- > with extra long jaws: length of jaws 55.0 mm
- > smooth ground gripping surfaces
- > edges carefully deburred
- > Chrome vanadium electric steel, forged, oil-hardened







31 25 160 ∡45° ⊟ <



								Di	mensio	ns			
	EAN	∢ —▶					L3	L4	W3	T1	W4	T2	52
Article-No.	4003773-	mm		Pliers	Head	Handles	mm	mm	mm	mm	mm	mm	g
31 11 160	044475	160	$\Box \Box$	black atramentized	polished	plastic coated	55.0		16.0	7.5	2.0	2.5	100
31 15 160	016465	160	$\Box \Box$	chrome plated		with multi-component grips	55.0		16.0	7.5	2.0	2.5	124
31 21 160	046790	160	<u>∡</u> 45° ⊟⊂	black atramentized	polished	plastic coated	55.0	27.0	16.0	7.5	2.0	2.5	97
31 25 160	016489	160	<u>∡45°</u> ⊟⊂⊃	chrome plated		with multi-component grips	55.0	27.0	16.0	7.5	2.0	2.5	123

GRIPPING PLIERS

Long Nose Pliers

- > heavy-duty and hard-wearing gripping pliers
- > different jaw styles
- > Chrome vanadium electric steel, forged, oil-hardened

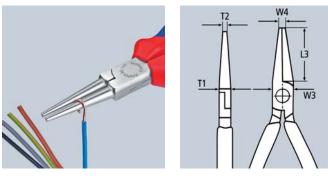
Style 1

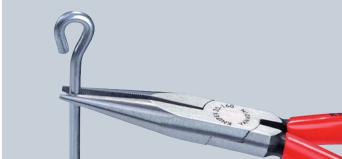
long, trapezoidal jaws; knurled gripping surfaces

Style 2

long, ha f-round jaws; knurled gripping surfaces Style 3

long, round jaws; smooth gripping surfaces





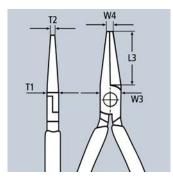
30	
	States and States
	30 11 160
	30 25 180
	30 36 160 Chrom Voucadin
3	2 100 V
\	30 36 160 ▲ 1000 V ④ ● 8 □

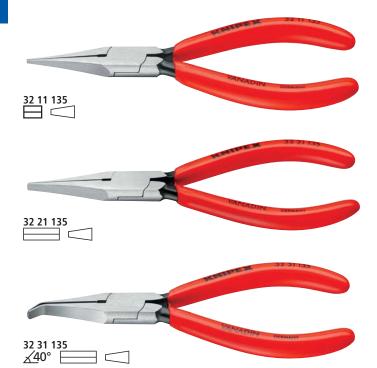
									Dimer	sions			
	EAN	∢ →			-			L3	W3	T1	W4	T2	52
Article-No.	4003773-	mm		Style	Pliers	Head	Handles	mm	mm	mm	mm	mm	g
30 11 140	033936	140						42.0	15.0	8.0	2.5	4.0	86
30 11 160	023128	160		1	black atramentized	polished	plastic coated	46.5	16.5	9.5	3.0	5.0	121
30 11 190	013051	190						50.0	18.5	9.5	3.0	7.0	140
30 13 140	016298	140		1	chrome plated		plastic coated	42.0	15.0	8.0	2.5	4.0	87
30 13 160	043485	160		1			plastic coated	46.5	16.5	9.5	3.0	5.0	118
30 15 140	042914	140						42.0	15.0	8.0	2.5	4.0	106
30 15 160	035046	160		1	chrome plated		with multi-component grips	46.5	16.5	9.5	3.0	5.0	149
30 15 190	001881	190						50.0	18.5	8.0	3.0	7.0	171
30 16 160	001904	160	☆ 1000 V ﷺ	1	chrome plated		insulated with multi-component grips, VDE-tested	46.5	16.5	9.5	3.0	5.0	150
30 21 140	042433	140						42.0	15.0	8.0	2.5	2.0	95
30 21 160	035053	160	Θ	2	black atramentized	polished	plastic coated	50.0	16.5	9.5	3.0	2.5	121
30 21 190	016366	190						50.0	18.5	8.0	3.0	2.4	135
30 23 140	016373	140	Θ	2	chrome plated		plastic coated	42.0	15.0	8.0	2.5	2.0	95
30 25 140	001980	140						42.0	15.0	8.0	2.5	2.0	114
30 25 160	035060	160	Θ	2	chrome plated		with multi-component grips	50.0	16.5	9.5	3.0	2.5	151
30 25 190	043515	190	-					50.0	18.5	8.0	3.0	2.4	168
30 31 160	035077	160	8	3	black atramentized	polished	plastic coated	41.0	16.5	9.5	5.0	2.5	110
30 33 160	043539	160	8	3	chrome plated		plastic coated	41.0	16.5	9.5	5.0	2.5	111
30 35 140	043102	140	0 -1	_			· ·	37.5	15.0	8.0	4.0	2.0	102
30 35 160	035084	160	8	3	chrome plated		with multi-component grips	41.0	16.5	9.5	5.0	2.5	138
30 36 160	002123	160	≵1000 V ≧€ 8 <	3	chrome plated		insulated with multi-component grips, VDE-tested	41.0	16.5	9.5	5.0	2.5	141

Relay Adjusting Pliers DIN ISO 5743

32

- > for gripping components and wires of the smallest diameters and for bending contact and relay springs
- > polished gripping surfaces
- > edges carefully deburred
- > High-grade special tool steel, forged, oil-hardened



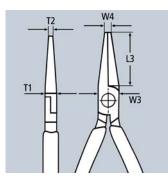


							Dimensions					
	EAN	∢ →					L3	W3	T1	W4	T2	52
Article-No.	4003773-	mm		Pliers	Head	Handles	mm	mm	mm	mm	mm	g
32 11 135	035091	135	$\Box \Box$	black atramentized	polished	plastic coated	34.0	12.5	7.0	1.4	1.5	73
32 21 135	043553	135	$\Box \Box$	black atramentized	polished	plastic coated	34.0	12.5	7.0	1.4	3.5	74
32 31 135	043560	135	<u>∡40°</u>	black atramentized	polished	plastic coated	32.0	12.5	7.0	1.4	3.5	73

Duckbill Pliers DIN ISO 5743

- > duckbill shaped jaws 9.0 mm wide at the tip and tapering to 1.5 mm thickness
- > smooth gripping surfaces
- > Chrome vanadium electric steel, forged, oil-hardened







								Dimer	nsions			
	EAN	∢ —▶					L3	W3	T1	W4	T2	5
Article-No.	4003773-	mm		Pliers	Head	Handles	mm	mm	mm	mm	mm	g
33 01 160	016663	160	$\square \bigcirc$	black atramentized	polished	plastic coated	55.0	15.0	7.5	3.0	9.0	103
33 03 160	016670	160	$\Box \Box$	chrome plated		plastic coated	55.0	15.0	7.5	3.0	9.0	103

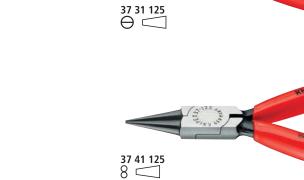
GRIPPING PLIERS

D

A

Gripping Pliers for precision mechanics DIN ISO 9

for precision mechanics DIN ISO 9655	37
 > precision pliers for fine assembly work, e g. in electronics and fine mechanics > for gripping, holding, bending and adjusting > tips precision ground > smooth gripping surfaces > edges carefully deburred > lap joint > Chrome vanadium electric steel, forged, oil-hardened 	37 11 125
Style 1 flat, wide jaws	
Style 2 flat, concave and pointed jaws	37 21 125
Style 3 half-round jaws	
Style 4 round, pointed jaws to bend wire loops	
$\longrightarrow \overset{F}{ }^{F} \longrightarrow \overset{E}{ }^{E} \longrightarrow$	



								Dimensions					
	EAN	∢ —▶						В	А	D	E	F	52
Article-No.	4003773-	mm		Style	Pliers	Head	Handles	mm	mm	mm	mm	mm	g
37 11 125	014287	125	$\square \bigcirc$	1	black atramentized	polished	plastic coated	27.0	12.5	7.0	2.0	5.5	76
37 13 125	043638	125	$\Box \Box$	1	chrome plated		plastic coated	27.0	12.5	7.0	2.0	5.5	71
37 21 125	035138	125	$\Box \Box$	2	black atramentized	polished	plastic coated	27.0	12.5	7.0	2.0	2.0	74
37 23 125	043645	125	$\Box \Box$	2	chrome plated		plastic coated	27.0	12.5	7.0	2.0	2.0	72
37 31 125	035145	125	$\Theta \square$	3	black atramentized	polished	plastic coated	27.0	12.5	7.0	2.0	1.6	74
37 33 125	016960	125	$\Theta \Box$	3	chrome plated		plastic coated	27.0	12.0	7.0	2.0	1.6	78
37 41 125	035152	125	8	4	black atramentized	polished	plastic coated	27.0	14.5	8.0	2.0	1.0	76
37 43 125	043652	125	8	4	chrome plated		plastic coated	27.0	14.5	8.0	2.0	1.0	76

Mechanics' Pliers DIN ISO 5745

38

> high bending strength of the pliers tips

> gripping surfaces cross-hatched, knurled

> Vanadium electric steel; forged, oil-hardened

38 71 200

70° angled, half-round jaws, suitable for pulling split pins; for gripping at points that are difficult to access

38 91 200 / 38 95 200

45° angled, half-round, long jaws, also suitable for gripping spark plugs and round components (spark plug cover "grabber")

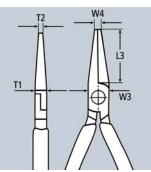
Style 2

40° angled jaws

Style 3 curved tips











38 21 200 ∡40° ⊖ ∞∞







38 71 200 ∡70° ⊖ ∞∞



38 91 200 <u>∡4</u>5° ⊖ ∞∞

38 41 190

								Dimer	sions			
	EAN	∢ →					L3	W3	T1	W4	T2	52
Article-No.	4003773-	mm		Pliers	Head	Handles	mm	mm	mm	mm	mm	g
38 11 200	035169	200	\ominus	black atramentized	polished	plastic coated	73.0	17.5	9.5	3.0	2.5	179
38 15 200	039594	200	\ominus and \Box	chrome plated		with multi-component grips	73.0	17.5	9.5	3.0	2.5	209
38 21 200	035176	200	<u>∡4</u> 0° ⊖ ∞∞	black atramentized	polished	plastic coated	73.0	17.5	9.5	3.0	2.5	175
38 25 200	043669	200	∡40° ⊖ ∞∞	chrome plated		with multi-component grips	73.0	17.5	9.5	3.0	2.5	209
38 31 200	040712	200	\ominus	black atramentized	polished	plastic coated	73.0	17.5	9.5	3.0	2.5	176
38 35 200	017134	200	\ominus and \Box	chrome plated		with multi-component grips	73.0	17.5	9.5	3.0	2.5	205
38 41 190	017141	190		black atramentized	polished	plastic coated	50.0	18.0	8.0	2.0	8.0	139
38 45 190	043676	190		chrome plated		with multi-component grips	50.0	18.0	8.0	2.0	8.0	171
38 71 200	017202	200	∡70° ⊖ ∞∞	black atramentized	polished	plastic coated	73.0	17.5	9.5	3.0	2.0	174
38 91 200	017219	200	∡45° ⊖ 🕸	black atramentized	polished	plastic coated	73.0	17.5	9.5		2.5	177
38 95 200	017233	200	∡45° ⊖ ∞∞	chrome plated		with multi-component grips	73.0	17.5	9.5		2.5	207

GRIP PLIERS

Universal Grip Pliers

- > hold round, profile and flat material securely
- > heavy duty model
- > with adjustment screw and release lever
- > one-hand operation
- > high clamping pressure due to toggle lever action
- > pliers body: rolled steel, high-strength
- > gripping jaws: chrome vanadium electric steel, forged

40 14 250

with one pivoting jaw



Article No.	EAN 4003773-	∢→ mm	Pliers		mm	mm ⁺	۵ ^۲ ۵ g
40 04 180	022190	180	bright zinc plated	35	25	32	310
40 04 250	002710	250	bright zinc plated	35	30	32	521
40 14 250	080329	250	bright zinc plated	43	42	45	600

Welding Grip Pliers

42

- > for gripping, clamping and holding of diverse profiles
- > heavy duty model
- > with adjustment screw and release lever
- > one-hand operation
- > high clamping pressure due to toggle lever action
- > pliers body: rolled steel, high-strength

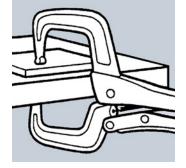


42 14 280





heat resistant malleable cast iron jaws; section or flat material items lying side by side are held in place during welding; also for section material with vertical webs up to 25 mm height



Article No.	EAN 4003773-	∢ ► mm	Pliers	O]; mm	mm	۲ _۵
42 14 280	022206	280	bright zinc plated	30 - 65	50	917
42 24 280	022213	280	bright zinc plated	10 - 70		850
42 34 280	022220	280	bright zinc plated		90	692
42 44 280	080350	280	bright zinc plated		90	740

42 24 280

42 34 280

42 44 280

webs up to 40 mm

heat resistant malleable cast iron jaws; round

or tubular material items lying centrally side by side are held securely during welding

gripping jaws of chrome vanadium steel, drop forged; clamps cumbersome workpieces and sections with high

moveable jaws; gripping jaws of chrome vanadium steel, drop forged; Clamps and balances bu ky work components and profiles with high ridges of up to 40 mm



42 24 280







42 44 280

Grip Pliers

41

- > hold round, profile and flat material securely
- > heavy duty model
- > with adjustment screw and release lever
- > one-hand operation
- > high clamping pressure due to toggle lever action
- > pliers body: rolled steel, high-strength
- > gripping jaws: chrome vanadium electric steel, forged

Style 0 jaws for round workpieces, with wire cutter

Style 1

jaws with double prism for round, section and flat material

Style 2

straight jaws for flat material

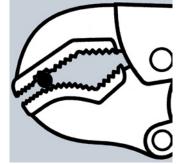
Style 3

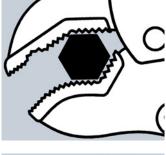
Long-Nose Grip Pliers, narrow, long jaws

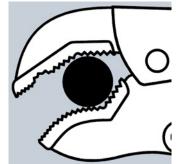
Style 4

Long-Nose Grip Pliers, narrow, long jaws; Very suitable for areas that are difficult to reach; Non-serrated gripping area for pinching off hoses



















41 24 225



41 34 165

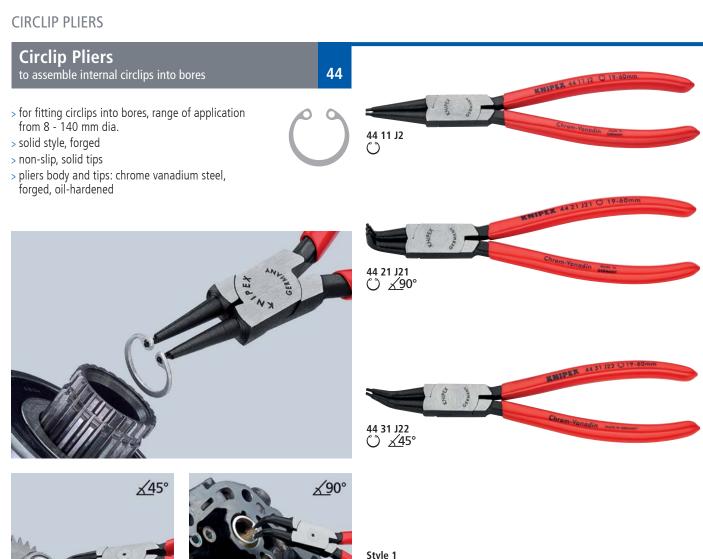
41 44 200 ∡70° আ∭



	EAN	-→				C]		\bigcirc]	52
Article-No.	4003773-	mm		Style	Pliers	mm	mm	mm	g
41 04 180	002741	180				30	20	30	363
41 04 250	002758	250		0	bright zinc plated	40	20	30	517
41 04 300	022183	300				65	30	34	923
41 14 250	023470	250		1	bright zinc plated	36	36	36	557
41 24 225	023487	225		2	bright zinc plated	25	16	30	504
41 34 165	047858	165		3	bright zinc plated	20	10	24	189
41 44 200	080343	200	∡70° আ∭	4	bright zinc plated	20	20	30	400



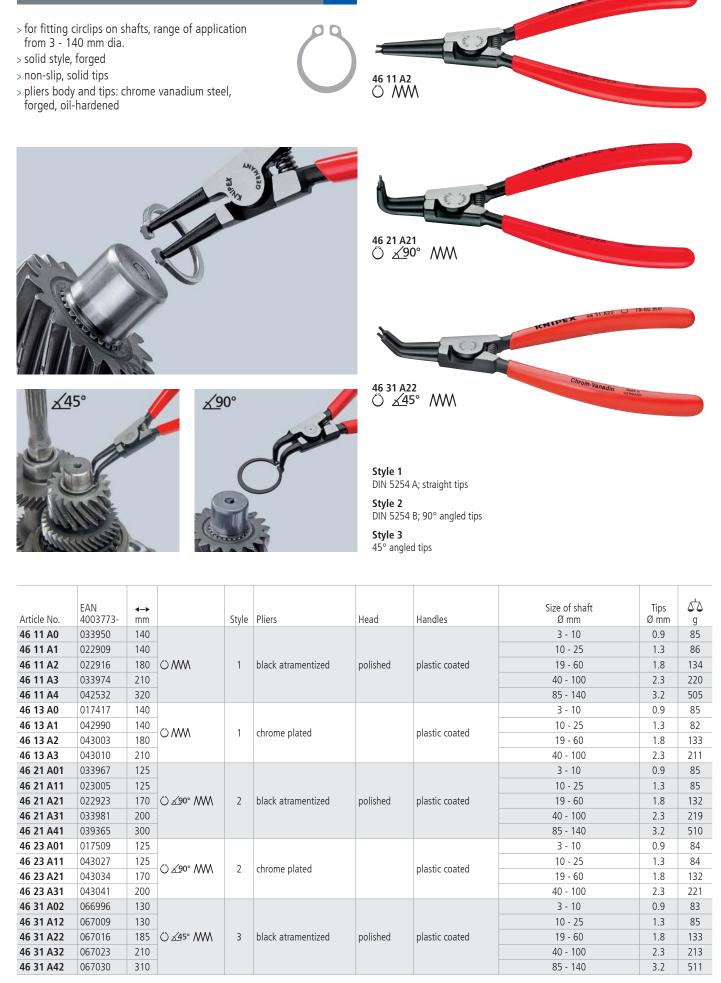
Circlip Pliers to assemble internal circlips into bores				
Circlip Pliers to assemble external circlips on shafts				
Precision Circlip Pliers to assemble internal circlips into bores				
- with overstretching limiter				
Precision Circlip Pliers to assemble external circlips on shafts				
- with overstretching limiter				
Circlip Pliers for large internal circlips up to 400 mm				
Circlip Pliers for large external circlips up to 400 mm				
Circlip Tool for circlips up to 1000 mm				
Special Retaining Ring Pliers for retaining rings on shafts				
Circlip Pliers for grip rings on shafts				
Sets of Circlip Pliers				
Pliers Sets in a foam tray				
Precision Circlip Pliers Sets				





Style 1 DIN 5256 C, straight tips Style 2 DIN 5256 D; 90° angled tips Style 3 45° angled tips

Article No.	EAN 4003773-	∢ ► mm		Style	Pliers	Head	Handles	Size of bore Ø mm	Tips Ø mm	۲۵ g
44 11 J0	040286	140						8 - 13	0.9	88
44 11 J1	022862	140						12 - 25	1.3	88
44 11 J2	022879	180	C	1	black atramentized	polished	plastic coated	19 - 60	1.8	135
44 11 J3	033943	225						40 - 100	2.3	196
44 11 J4	042549	320						85 - 140	3.2	469
44 13 J0	048176	140						8 - 13	0.9	89
44 13 J1	042938	140						12 - 25	1.3	88
44 13 J2	042945	180	C	1	chrome plated		plastic coated	19 - 60	1.8	138
44 13 J3	042952	225						40 - 100	2.3	194
44 13 J4	017301	320						85 - 140	3.2	463
44 21 J01	040132	130						8 - 13	0.9	88
44 21 J11	022886	130						12 - 25	1.3	88
44 21 J21	022893	170	O <u>⊀</u> 90°	2	black atramentized	polished	plastic coated	19 - 60	1.8	139
44 21 J31	033769	215						40 - 100	2.3	196
44 21 J41	043683	300						85 - 140	3.2	462
44 23 J11	042969	130						12 - 25	1.3	89
44 23 J21	042976	170	O <u>⊀</u> 90°	2	chrome plated		plastic coated	19 - 60	1.8	138
44 23 J31	042983	215						40 - 100	2.3	200
44 31 J02	066941	140						8 - 13	0.9	90
44 31 J12	066958	140						12 - 25	1.3	90
44 31 J22	066965	180	⊖ <u>⊀</u> 45°	3	black atramentized	polished	plastic coated	19 - 60	1.8	140
44 31 J32	066972	225						40 - 100	2.3	195
44 31 J42	066989	310						85 - 140	3.2	465



46

Circlip Pliers

to assemble external circlips on shafts

CIRCLIP PLIERS

Precision Circlip Pliers to assemble internal circlips into bores DIN 5256

With inserted tips for reliable work

Heavy duty in continuous operation: up to 10 times longer service life compared to 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

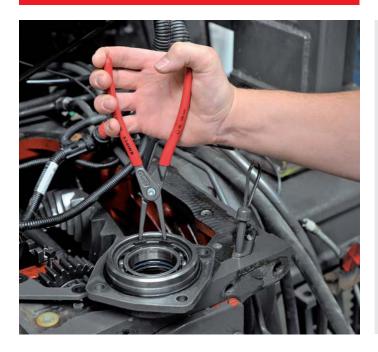
Style 1 DIN 5256 C; straight tips Style 2

DIN 5256 D; 90° angled tips



High precision quality

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

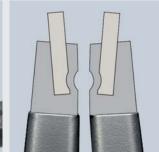


Precision and durability

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

Article No.	EAN 4003773-	∢ ► mm		Style	Pliers	Handles	Size of bore Ø mm	Tips Ø mm	۲۵ g
48 11 J0	048510	140					8 - 13	0.9	105
48 11 J1	048527	140					12 - 25	1.3	105
48 11 J2	048534	180	OT	1	grey atramentized	with non-slip plastic coating	19 - 60	1.8	175
48 11 J3	048541	225	_				40 - 100	2.3	266
48 11 J4	048558	320	_				85 - 140	3.2	580
48 21 J01	048619	130					8 - 13	0.9	105
48 21 J11	048633	130					12 - 25	1.3	105
48 21 J21	048640	165	℃ ∡೨೦° 📲	2	grey atramentized	with non-slip plastic coating	19 - 60	1.8	175
48 21 J31	048657	210					40 - 100	2.3	265
48 21 J41	048664	305					85 - 140	3.2	576

Now also with overstretching limiter For all circlips with a diameter of 8 - 100 mm

- > with overstretching limiter for standardized assembly according to DIN 472
- > the adjustable stop screw prevents overexpansion
- > adjustment using hexagonal screw
- > ideal for series production as excessive expansion of rings is effectively prevented

Style 3 DIN 5256 C, straight tips

Style 4 DIN 5256 D; 90° angled tips



KNIPEX Precision Circlip Pliers with overexpansion guard

For the standardized fitting of circlips in the industrial serial production. Particularly manufacturers of sensitive, safety-relevant components (e.g. brakes or gears) highly appreciate the compliance of DIN 471 and 472. The mounting of circlip rings in this case requires pliers with overexpansion guard or a cone. KNIPEX Circlip Pliers with overexpansion guard meet the requirements and furthermore offer a superior durability.





									<u>لم</u>
Article No.	EAN 4003773-	∢ → mm		Style	Pliers	Handles	Size of shaft Ø mm	Tips Ø mm	g g
48 31 J0	079552	140					8 - 13	09	105
48 31 J1	073864	140	() 57	2	arov atramontized	with non-clip plactic coating	12 - 25	13	105
48 31 J2	073871	180	011	5	grey atramentized	with non-slip plastic coating	19 - 60	18	175
48 31 J3	073888	225					40 - 100	2,3	266
48 41 J01	079569	130					8 - 13	09	105
48 41 J11	079576	130	()./00° 5 7	4	grey atramentized	with non-clip plactic coating	12 - 25	13	105
48 41 J21	079640	165	℃ ∡90° ₽€ 4	4	grey atramentized	with non-slip plastic coating	19 - 60	18	175
48 41 J31	079590	210					40 - 100	2 3	265

CIRCLIP PLIERS

Precision Circlip Pliers to assemble external circlips on shafts DIN 5254

With inserted tips for reliable work

Heavy duty in continuous operation: up to 10 times longer service life compared to turned tips

- > large contact faces on the tips: no distortion of circlips, easy fitting
- > bolted joint: precise, zero backlash operation of pliers
- > internal opening spring, protected and captive
- > non-slip plastic coating on the handles
- > pliers body: chrome vanadium electric steel, forged, oil-hardened
- > inserted tips: spring steel wire, drawn

Style 1

DIN 5254 A; straight tips

Style 2 DIN 5254 B; 90° angled tips

High precision quality

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



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



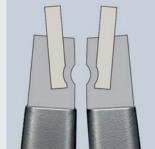
49

KNIPEX-Precision Circlip Pliers: fit circ ips without distortion; easy and quick assemb ing

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

Article No.	EAN 4003773-	∢ ► mm		Style	Pliers	Handles	Size of shaft Ø mm	Tips Ø mm	۲۵ g
49 11 A0	048718	140					3 - 10	09	101
49 11 A1	048725	140	_				10 - 25	13	100
49 11 A2	048732	180	O E S MM	1	grey atramentized	with non-slip plastic coating	19 - 60	18	170
49 11 A3	048749	225				coating	40 - 100	2 3	270
49 11 A4	048756	320	_				85 - 140	3.2	599
49 21 A01	048817	130					3 - 10	09	100
49 21 A11	048824	130					10 - 25	13	102
49 21 A21	048831	165	°∡9° £5 MM	2	grey atramentized	with non-slip plastic coating	19 - 60	18	169
49 21 A31	048848	210				country	40 - 100	2 3	272
49 21 A41	048855	305					85 - 140	3.2	601

Now also with overstretching limiter For all circlips with a diameter of 8 - 100 mm

- > with overstretching limiter for standardized assembly according to DIN 471
- > the adjustable stop screw prevents overexpansion
- > adjustment using hexagonal screw
- > ideal for series production as excessive expansion of rings is effectively prevented

Style 3 DIN 5254 A; straight tips;

Style 4 DIN 5254 B; 90° angled tips



49 41 A11 ♡ <u>∡9</u>0° **€** ∭

KNIPEX Precision Circlip Pliers with overexpansion guard

For the standardized fitting of circlips in the industrial serial production. Particularly manufacturers of sensitive, safety-relevant components (e.g. brakes or gears) highly appreciate the compliance of DIN 471 and 472. The mounting of circlip rings in this case requires pliers with overexpansion guard or a cone. KNIPEX Circlip Pliers with overexpansion guard meet the requirements and furthermore offer a superior durability.

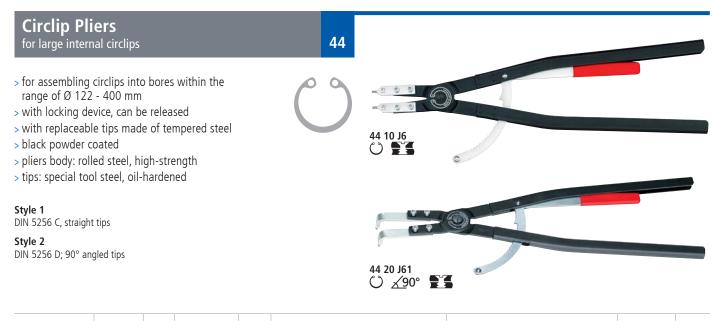




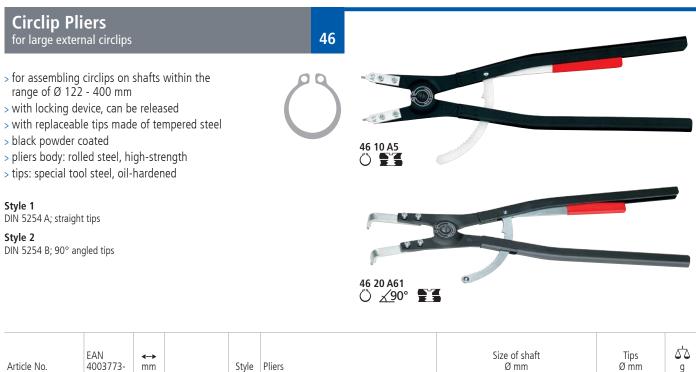
10 - 25 mm

Article No.	EAN 4003773-	∢ ► mm		Style	Pliers	Handles	Size of shaft Ø mm	Tips Ø mm	۲۵ g
49 31 A0	061748	140					3 - 10	0.9	103
49 31 A1	073895	140	0 F S MM	3	grou atramontized	with non-slip plastic	10 - 25	1.3	100
49 31 A2	073901	180		2	grey atramentized	coating	19 - 60	1.8	170
49 31 A3	073918	225					40 - 100	2.3	270
49 41 A01	061755	130					3 - 10	0.9	102
49 41 A11	079606	130	° ⊻ 90° € € MM	4	grou atramontized	with non-slip plastic	10 - 25	1.3	102
49 41 A21	079613	165		4	grey atramentized	coating	19 - 60	1.8	169
49 41 A31	079620	210					40 - 100	2.3	272

CIRCLIP PLIERS



Article No.	EAN 4003773-	∢ ► mm		Style	Pliers	Size of bore Ø mm	Tips Ø mm	۲۵ g
44 10 J5	024910	570	ON	1	black pourder control	122 - 300	3.5	1738
44 10 J6	024927	580			black powder-coated	252 - 400	4.5	1755
44 20 J51	024958	590	♡ <u>∡</u> 90° ₽≦	2		122 - 300	3.5	1803
44 20 J61	024965	600		2	black powder-coated	252 - 400	4.5	1723
44 19 J5	024934	1 pair o	of spare tips for 4	14 10 J5				
44 19 J6	024941	1 pair o	of spare tips for 4	14 10 J6				
44 29 J51	024972	1 pair o	of spare tips for 4	14 20 J5	1			
44 29 J61	024989	1 pair o	of spare tips for 4	14 20 J6	1			



Article No.	EAN 4003773-	∢ ► mm		Style	Pliers	Size of shaft Ø mm	Tips Ø mm	۲ <mark>۵</mark>	
46 10 A5	024996	560	~ ~ ~			122 - 300	3.5	1773	
46 10 A6	025009	570	0 II		black powder-coated	252 - 400	4.5	1795	
46 20 A51	025023	570	ి∡90° €్	2	black powder-coated	122 - 300	3.5	1832	
46 20 A61	025030	580		Z	plack powdel-coaled	252 - 400	4.5	1826	
46 19 A5	024316	1 pair (of spare tips for	46 10 A5	5				
46 19 A6	025016	1 pair o	of spare tips for	46 10 A6	5				
46 29 A51	025047	1 pair o	of spare tips for 46 20 A51						
46 29 A61	025054	1 pair (air of spare tips for 46 20 A61						

Circlip Tool for large internal and external circlips up to 1000 mm

46

- > universally usable for large circlips with diameters of 400 1000 mm reliable opening and closing of the circlips and holding by self-locking precision spindle drive
- > for fitting and removing circlips
- > circlips are reliably catched thanks to short, direct attachment
- > replaceable tips having working ends with diameters of 6 and 9 mm, for perfect adaption to the handling bores in the circlips
- > optional operation by hand, with Allen key, ratchet wrench or cordless screwdriver
- > areas of application are heavy engines where very high forces and torques are transmitted with large shafts and bearings,
 e.g. wind turbines, tidal power stations, generator construction, hydropower stations, large machine construction (rolling mills, presses), shipbuilding, aerospace
- > tool in a plastic case with foam insert
- > tip material: chrome-vanadium electric steel









Machine operable







Replaceable inserts for internal and external circ ips

Article No.	EAN 4003773-		Size of bore Ø mm	Size of shaft Ø mm	۲۵ d
46 10 100	075417	00	400 - 1000	400 - 1000	2200

CIRCLIP PLIERS

Special Retaining Ring Pliers for retaining rings on shafts

DIN 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

for retaining rings with a minimum ring split gap of 3.6 mm

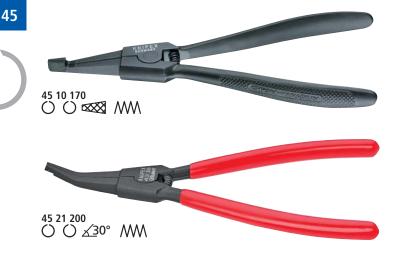
45 21 200

angled jaws with centering hole; for snap rings larger than 12.0 mm dia., e.g. for securing cardan shafts in a motor vehicle; minimum ring split gap of the rings 2.2 mm

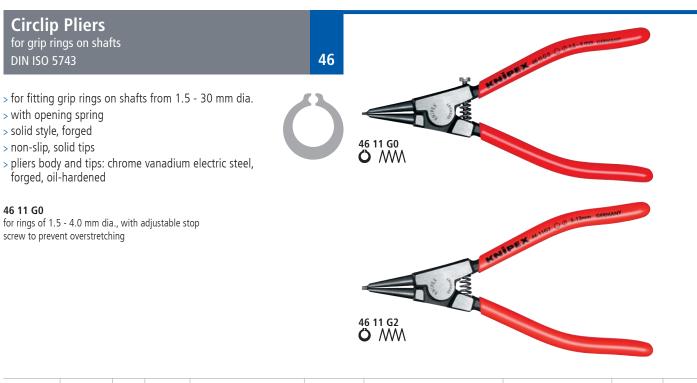




45 10 170



	EAN					52
Article No.	4003773-	⊲- ► mm		Pliers	Handles	g
45 10 170	017370	170	00∞∞MM	burnished		156
45 21 200	031208	200	OO∡3º° MM	burnished	plastic coated	186



Article No.	EAN 4003773-	∢ → mm		Pliers	Head	Handles	Size of shaft Ø mm	Tips Ø mm	۵ ^۲ ۵ g
46 11 G0	047896	140	0 MM	black atramentized	polished	plastic coated	1.5 - 4.0	0.9	87
46 11 G1	031062	140			polished plastic coated		4.0 - 7.0	1.3	85
46 11 G2	031079	140	o MM	black atramentized		plastic control	5.0 - 13.0	1.8	85
46 11 G3	031086	140	0/000	DIACK atramentized			14.0 - 18.0	2.3	86
46 11 G4	031093	180	1				20.0 - 30.0	3.2	134

Circlip Pliers Sets



00 19 56 OO > tool roll made of hard-wearing polyester fabric> with practical, adjustable quickrelease fastener

00 19 56

four common Circlip Pliers for internal and external circlips

00 19 57

four common Precision Circlip Pliers for highest requirements



Article No.	EAN 4003773-				Style	Capacitiy Ø mm	Tips Ø mm	Quantity	g			
00 19 56	030973		Circlip Pliers Set 4 parts									
		C	44 11 J2	Circlip Pliers	straight tips	19 - 60	1.8	1	1			
		() <u>⊀</u> 90°	44 21 J21	for internal circlips into bores	angled tips	19 - 60	1.8	1				
		OMM	46 11 A2	Circlip Pliers	straight tips	19 - 60	1.8	1				
		©∡9° MM	46 21 A21	for external circlips on shafts	angled tips	19 - 60	1.8	1				
00 19 57	050056		Precision Circlip Pliers Set 4 parts						66			
		() .	48 11 J1	Precision Circlip Pliers		12 - 25	1.3	1	1			
		OTI	48 11 J2	for internal circlips into bores		19 - 60	1.8	1				
		49 11 A1	Precision Circlip Pliers	straight tips	10 - 25	1.3	1	1				
			49 11 A2	for external circlips on shafts		19 - 60	1.8	1	1			

Sets of pliers in a foam tray

00 20

- > in a foam tray for workbenches and tool trolleys
- > clearly organised storage of tools
- > precisely-sized recesses for holding the pliers
- > foam tray dimensions (L x W x H): 335 x 165 x 33 mm
- > Material: two colour, closed pore foam





00 20 01 V09

Article No.	EAN 4003773-				Quantity	۲ _۵ ع
00 20 01 V02	069652		Circlip Pliers	Set "SRZ" Six precision circlip pliers in a foam tray		915
		23 5-7	48 11 J1		1	
		OSI	48 11 J2	Precision Circlip Pliers for internal circlips into bores	1	
		Ů ₽€ <u>⊀</u> 90°	48 21 J21		1	
			49 11 A1		1	
		° E'S MM	49 11 A2	Precision Circlip Pliers for external circlips on shafts	1	
		Ů E S MM <u>∡</u> 90°	49 21 A21		1	
00 20 01 V09	073291		Circlip Pliers	Set "SRZ II" Four precision circlip pliers in a foam tray		820
		OTI	48 11 J2	Dussisian Circlin Dliars for internal sireling in have hales	1	
		Ů ₽€ <u>⊀</u> 90°	48 21 J21	Precision Circlip Pliers, for internal circlips in bore holes	1	
		Ő E S MM	49 11 A2	Descrition Circlin Diversifier and similar an electro	1	
		Ů 📲 🕷 <u>∡</u> 90°	49 21 A21	Precision Circlip Pliers, for external circlips on shafts	1	

81

CIRCLIP PLIERS

Precision Circlip Pliers Sets

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





00 20 03 SB

00 20 04 SB

Article No.	EAN 4003773-				Style	Capacity Ø mm	Tips Ø mm	Quantity	ے ل g
00 20 03 SB	050100		Precision C	irclip Pliers Set					685
			48 11 J1	Precision Circlip Pliers		12 - 25	1.3	1	
		OII	48 11 J2	for internal circlips into bores	stus indust sizes	19 - 60	1.8	1	
			49 11 A1	Precision Circlip Pliers	straight tips	10 - 25	1.3	1	
		Ö ss MM	49 11 A2	for external circlips on shafts		19 - 60	1.8	1	
00 20 04 SB	062417		Precision C	irclip Pliers Set					127
			48 11 J1	Precision Circlip Pliers		12 - 25	1.3	1	1
		OS	48 11 J2	for internal circlips into bores	straight ting	19 - 60	1.8	1	
		OTIM	49 11 A1	Precision Circlip Pliers	straight tips	10 - 25	1.3	1	
			49 11 A2	for external circlips on shafts		19 - 60	1.8	1	
			48 21 J11	Precision Circlip Pliers		12 - 25	1.3	1	_
		♥ 📲 🖉 🌕	48 21 J21	for internal circlips into bores	an alad tina	19 - 60	1.8	1	1
		OTIM	49 21 A11	Precision Circlip Pliers	angled tips	12 - 25	1.3	1	1
		<u>⊀9</u> 0°	49 21 A21	for external circlips on shafts		19 - 60	1.8	1	1

00 20

Precision Circlip Pliers Set



> high quality, shock-resistant plastic case

> dimensions, (W x H x D): 260 x 80 x 210 mm

> clearly organised storage of tools

> contains common Precision Circlip Pliers for highest requirements> precisely-sized recesses for holding the pliers

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00 21 25
0 0
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Article No.	EAN 4003773-				Style	Capacity Ø mm	Tips Ø mm	Quantity	۵۵ g
00 21 25	050131		Precision-C	irclip Pliers Set					1635
		C357	48 11 J1	Precision Circlip Pliers		12 - 25	1.3	1	
		ON	48 11 J2	for internal circlips into bores	straight tips	19 - 60	1.8	1	
		ÖTIM	49 11 A1	Precision Circlip Pliers for external circlips on shafts	straight tips	10 - 25	1.3	1	
			49 11 A2	for external circlips on shafts		19 - 60	1.8	1	
		Ů ₽ <u>₹</u> 90°	48 21 J11 48 21 J21	Precision Circlip Pliers for internal circlips into bores		12 - 25	1.3	1	
			48 21 J21	for internal circlips into bores	angled ting	19 - 60	1.8	1	
	49 21 A11 Precision Circlip Pliers		Precision Circlip Pliers	angled tips	10 - 25	1.3	1		
		<u>⊀9</u> 0°	49 21 A21	for external circlips on shafts		19 - 60	1.8	1	

Circlip Pliers Sets

- > attractive sales packaging with Euro standard perforation
 > contains common Circlip Pliers for highest requirements
 > sturdy plastic packaging, also suitable for storage of the pliers





00 20 04 V01

00 20 03 V02

Article No.	EAN 4003773-				Style	Capacity Ø mm	Tips Ø mm	Quantity	
00 20 03 V02	077640		Circlip Plier	s Set					45
		U	44 11 J1	Circlip Pliers		12 - 25	1.3	1	
		0	44 11 J2	for internal circlips into bores	straight tips	19 - 60	1.8	1	
		23	46 11 A1	Circlip Pliers	straight tips	10 - 25	1.3	1	
		0	46 11 A2	for external circlips on shafts		19 - 60	1.8	1	
00 20 04 V01	077633		Circlip Plier	s Set					89
		0	44 11 J1	Circlip Pliers		12 - 25	1.3	1	
		0	44 11 J2	for internal circlips into bores	straight ting	19 - 60	1.8	1	
		23	46 11 A1	Circlip Pliers	straight tips	10 - 25	1.3	1	
		0	46 11 A2	for external circlips on shafts		19 - 60	1.8	1	
		U <u>⊀9</u> 0°	44 21 J11	Circlip Pliers		12 - 25	1.3	1	
			44 21 J21	for internal circlips into bores	a se al a ditiona	19 - 60	1.8	1	
		(h) /000	46 21 A11	Circlip Pliers	angled tips	10 - 25	1.3	1	
		_© <u>∡9</u> 0°	46 21 A21	for external circlips on shafts		19 - 60	1.8	1	-

00 20



Carpenters' Pincers and Concreters' Nippers

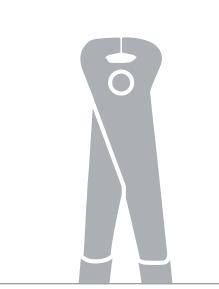
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Carpenters' Pincers	86
Hammerhead Style Carpenters' Pincers	86
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Concreters' Nippers (Tower Pincers, Steel Fixers' Nippers)	88
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CARPENTERS' PINCERS

Carpenters' Pincers DIN ISO 9243

50

- > for heaviest duty
- > specially favoured by craftsmen for their precise workmanship
- > extreme wear resistance and well balanced
- > cutting edges additionally hardened; cutting edge hardness approx. 60 HRC
- > Special tool steel, forged, oil-hardened







							Cutting capacities	
	EAN	-→						50
Article No.	4003773-	mm		Pliers	Head	Handles	Ømm	g
50 00 160	013129	160					1 8	215
50 00 180	013136	180					2.0	303
50 00 210	013143	210		black atramentized	u - l'ala - d		2.2	398
50 00 225	013150	225		DIACK atramentized	polished		2.2	427
50 00 250	013167	250					2.2	563
50 00 300	015710	300					2.4	862
50 01 160	015802	160					1 8	223
50 01 180	016021	180					2.0	316
50 01 210	016052	210		black atramentized	u - l'ala - d		2.2	411
50 01 225	016083	225		DIACK allamentized	polished	plastic coated	2.2	437
50 01 250	016267	250	1				2.2	583
50 01 300	016915	300					2.4	903

51

Hammerhead Style Carpenters' Pincers DIN ISO 9243

- > with striking face to hammer down nails
- > cutting edges additionally hardened; cutting edge hardness approx. 60 HRC
- > Special tool steel, forged, oil-hardened







						Cutting capacities	
	EAN	∢ —▶					52
Article No.	4003773-	mm	Pliers	Head	Handles	Ømm	g
51 01 210	023104	210	black atramentized	polished	plastic coated	1.8	413

Farriers' Pincers (Tear-off Pliers for vehicle bodywork) DIN ISO 5743

55





- > the ideal pliers for the farrier
- > with small head and anvil for redirecting horseshoe-nails
- > also suitable for dismantling work in vehicle body workshops
- cutting edges additionally hardened; cutting edge hardness approx. 59 HRC
- > High-grade special tool steel, forged, multi stage oil-hardened



55 00 300

	EAN	∢ →			Head width	52
Article No.	4003773-	mm	Pliers	Head	mm	g
55 00 300	014072	300	black atramentized	polished	20.0	786

Potters' Pincers (Brick Pincer) DIN ISO 5743

EO	
20	

- > for pottery work
- > with wire cutter for soft wire
- > cutting edges additionally hardened;
- cutting edge hardness approx. 59 HRC
- > High-grade special tool steel, forged, multi stage oil-hardened





Article No.	EAN 4003773-	∢ ► mm	Pliers	Head	Head width mm	۲ _۵ ع
58 30 225	014331	225	black atramentized	polished	20.0	347



Head shape provides optimised movement when tightening steel mesh knots during reinforced concrete work



						Cu	ting capacit	les	
	EAN	∢ →				\bigcirc	\bigcirc		5
Article No.	4003773-	mm	Pliers	Head	Handles	Ømm	Ømm	Ømm	g
68 01 160	013792	160				4.0	2.8	2.3	202
68 01 180	013808	180	black atramentized	polished	plastic coated	4.0	3.2	2.5	284
68 01 200	013815	200	DIACK ALIAIHEIILIZEU	polistieu	plastic coated	4.0	3.5	2.8	319
68 01 280	077664	280				4.5	4.0	3.2	465

CONCRETERS' NIPPERS

Concreters' Nippers (Tower Pincers, Steel Fixers' Nippers) DIN ISO 9242

99 0

> to twist and cut wire in one operation: fast, reliable and economical

- > unobtained precision and long service life make these the most widely purchased concreters' nippers in the world
- cutting edges additionally hardened; cutting edge hardness approx. 61 HRC
- > High-grade special tool steel, forged, multi stage oil-hardened

99 00 220 K12

with 12 mm head, particularly suitable for tile paving work



99 00 200



99 00 220



99 00 250





99 00 280



99 00 300





99 00 220 K12

						Cutting c	apacities	
Article No.	EAN 4003773-	∢ → mm	Pliers	Head	Handles	Ø mm	Ø mm	۲ g
99 00 200	014393	200				1.8	1.4	230
99 00 220	013273	220				2.4	1.6	315
99 00 250	013280	250	black atramentized	polished		2.4	1.6	400
99 00 280	014096	280				2.8	1.8	455
99 00 300	014409	300				3.1	1.8	510
99 00 220 K12	027812	220	black atramentized	polished		2.4	1.6	315
99 01 200	021452	200				1.8	1.4	247
99 01 220	021469	220				2.4	1.6	334
99 01 250	021483	250	black atramentized	polished	plastic coated	2.4	1.6	429
99 01 280	021490	280				2.8	1.8	499
99 01 300	014416	300				3.1	1.8	548
99 04 220	048398	220				2.4	1.6	321
99 04 250	048213	250	bright zinc plated			2.4	1.6	398
99 04 280	048220	280				2.8	1.8	457

High Leverage Concreters' Nippers

99

High lever transmission

25% less effort required compared to conventional concreters' nippers of the same size

Extra-slim form for tying deep mounted steel rods

- > to lace concrete reinforcing steel with binding wire from a roll wire is twisted and cut in a single pass
- > high-leverage joint, minimising strain, even when thick binding wires are used
- > the high damping of the cutting stroke on cutting through the binding wire reduces the strain on tendons and muscles
- > cutting edges additionally hardened; cutting edge hardness approx. 61 HRC
- > High-grade special tool steel, forged, multi stage oil-hardened











99 14 300

						Cutting o	apacities		
Article No.	EAN 4003773-	∢ → mm	Pliers	Head	Handles	Ø mm	Ø mm	Head width mm	۲۵ g
99 10 250	071396	250	black atramantized	nalishad		3.3	1.8	23.0	350
99 10 300	022398	300	black atramentized	polished		3.8	2.0	25.0	501
99 11 250	071402	250	black atramentized	nalishad	plastic control	3.3	1.8	23.0	350
99 11 300	042365	300	DIACK atramentized	polished	plastic coated	3.8	2.0	25.0	537
99 14 250	071419	250	bright zing plated			3.3	1.8	23.0	350
99 14 300	028116	300	bright zinc plated			3.8	2.0	25.0	499

Cutting Pliers

10-160 MADEIN GERMANY

TTT?

ALLER ALLE

Diagonal Cutters for plastics	92
Diagonal Cutter for fibre optics	92
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Diagonal Cutters for electromechanics	96
X-Cut®	97
High Leverage Diagonal Cutters	98
TwinForce®	100
High Leverage Centre Cutters	101
CoBolt®	102
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Bolt Cutters	106
Concrete Mesh Cutter	107
Bolt End Cutting Nippers	108
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End Cutting Nippers	109
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Diagonal Cutters for plastics DIN ISO 5746

7

- > cutting face flush ground
- > for nearly flush cutting of moulded plastic components from sprues
- > cuts soft materials such as lead in a flush cut
- > with opening spring
- > Vanadium electric steel; forged, oil-hardened

72 01 160

with elongated cutting edge



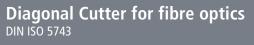
Elongated cutting edge (5 mm) 25 % more cutting performance





Article No.	EAN 4003773-	∢ ► mm		Head	Handles	۲ <u>۵</u> ۵
72 01 140	043713	140				125
72 01 160	041245	160	M	polished	plastic coated	164
72 01 180	046837	180	-			193
72 02 125	044215	125	M	polished	with multi-component grips	109
72 11 160	046813	160	<u>∡4</u> 5° / 	polished	plastic coated	156
72 21 160	046820	160	<u>∡8</u> 5° / `` M M	polished	plastic coated	165

72





- > specially developed for cutting fibre optics (glass fibre cables)
- > with elongated cutting edge
- > cutting face flush ground
- > cutting edges additionally induction hardened
- > with opening spring
- > Vanadium electric steel, forged, multi stage oil-hardened



	EAN	∢ →				52
Article No.	4003773-	mm		Head	Handles	g
72 51 160	028031	160	MW 🗾	polished	plastic coated	166

KNIPEX WORLD OF DIAGONAL CUTTERS

With its four tailor-made diagonal cutters, KNIPEX provides solutions for every application. An extraordinary variety ensures an excellent response from the "KNIPEX World of diagonal cutters" to whatsoever specification.

KNIPEX-Diagonal Cutter The classic model. The indispensable cutting tool for versatile use.

KNIPEX-High Leverage Diagonal Cutter The robust. For very tough, continuous use.

KNIPEX X-Cut® The all-rounder. Compact and light. Powerful and precise.

KNIPEX TwinForce®

The superior model. For comfortable cutting, repetitive cutting or extremely hard cutting jobs.

Diagonal Cutter



Long cutting edges for cutting cable; also precise enough for the finest stranded wires Hand force is multiplied by 12

High Leverage Diagonal Cutter



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

TwinForce®



The reapplying cutter Double-hinged design Hand force is multiplied by 39

X-Cut®



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



Diagonal Cutters DIN ISO 5749

- > the indispensable diagonal cutter for all-round use
- > high quality material and precise workmanship for long service life

70

- > precision cutting edges for soft and hard wire
- > clean cutting of thin copper wires, also at the cutting-edge tips
- > cutting edges additionally induction hardened, cutting edge hardness approx. 62 HRC
- > narrow head style for use in confined areas
- > Vanadium steel, forged, multi stage oil-hardened

70 05 180 T*

Pliers with tether attachment point for mounting a fall protection







Cutting conscition

Clean cutting of thin copper wires, also at the cutting-edge tips

							Cutting capacities		ties	
Article No.	EAN 4003773-	∢ ► mm		Pliers	Head	Handles	Ø mm	Ø mm	Ø mm	۲ <mark>۵</mark>
70 01 110	014324	110					3.0	2.0	1.2	80
70 01 125	013402	125	P4	black	nolished	plastic control	3.0	2.3	1.5	80
70 01 140	013419	140		atramentized	polished	plastic coated	4.0	2.5	1.8	126
70 01 180	018070	180					4.0	3.0	2.5	200
70 02 125	034025	125					3.0	2.3	1.5	119
70 02 140	023098	140		black atramentized	polished	with multi-component grips	4.0	2.5	1.8	150
70 02 180	034049	180		attamentizea			4.0	3.0	2.5	252
70 05 125	039501	125					3.0	2.3	1.5	119
70 05 140	039488	140				with multi-component grips	4.0	2.5	1.8	154
70 05 180	043706	180		chrome plated 4.0		4.0	3.0	2.5	246	
70 05 180 T	080039	180				with multi-component grips and integrated tether attachment point	4.0	3.0	2.5	250
70 06 125	018124	125					3.0	2.3	1.5	121
70 06 140	040293	140	🛧 1000 V 🖄 🚰 🗲	chrome plated		insulated with multi-component grips, VDE-tested	4.0	2.5	1.8	160
70 06 180	033813	180				grips, voe testeu	4.0	3.0	2.5	254
70 07 180	018179	180	桧 1000 V 🖄 🚭 🕨 ◄	chrome plated		with dipped insulation, VDE-tested	4.0	3.0	2.5	269
70 11 110	018193	110		black atramentized	polished	plastic coated	3.0	2.0	1.2	91
70 15 110	029649	110	MW P	chrome plated		with multi-component grips	3.0	2.0	1.2	98

Diagonal Cutters DIN ISO 5749

70

70 01 160

70 02 160

KNIPE

The next generation of the KNIPEX classic, with even better features:

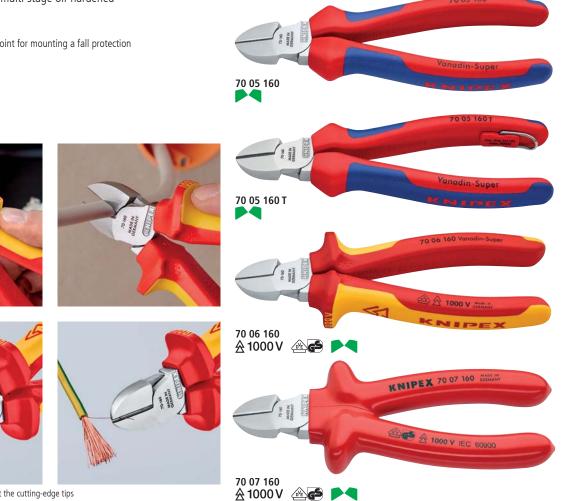
20% higher cutting force than the previous model, plus longer cutting edges

High cutting force due to optimum cutting geometry and transmission ratio

- > strong precison rivet for even movement and long service-life
- > high-precision cutting edges: additionally induction hardened, cutting-edge hardness approx. 62 HRC
- > narrow head with long cutting edges: good access also in confined areas
- > long tool life and high loading capacity
- > the essential diagonal cutters for diverse use
- > Vanadium steel, forged, multi stage oil-hardened

70 05 160 T*

Pliers with tether attachment point for mounting a fall protection



Cuts thin Cu wire accurately, also at the cutting-edge tips

							Cutting capacities			
Article No.	EAN 4003773-	∢ →→ mm		Pliers	Head	Handles	Ø mm	Ø mm	Ø mm	۲۵ g
70 01 160	013426	160	PA	black atramentized	polished	plastic coated	4.0	3.0	2.0	171
70 02 160	034032	160	P9	black atramentized		with multi-component grips	4.0	3.0	2.0	206
70 05 160	039600	160		chrome plated		with multi-component grips	4.0	3.0	2.0	207
70 05 160 T	080022	160	P9	chrome plated		with multi-component grips and integrated tether attachment point	4.0	3.0	2.0	207
70 06 160	021995	160	桧 1000 V 🏝 💕 🕨 ◄	chrome plated		insulated with multi-component grips, VDE-tested	4.0	3.0	2.0	216
70 07 160	018155	160	숲 1000 V 🖄 🚭 ► 🗨	chrome plated		with dipped insulation, VDE-tested	4.0	3.0	2.0	227
70 26 160	018223	160	桧 1000 V 逊 健 / 1	chrome plated		insulated with multi-component grips, VDE-tested	4.0			216

Diagonal Cutters for electromechanics DIN ISO 5749

76

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

76 12 125

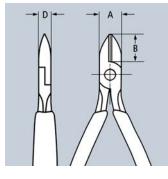
low-friction double spring for gentle and even opening

76 22 125

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

76 81 125

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



125 to 12	
76 01 125 1 1 1 25	
	76 05 125
Contraction of the second seco	
76 05 125 AB	KNIPEX

							Cutting capacities				Dimensions			
Article No.	EAN 4003773-	∢ ► mm		Pliers	Head	Handles	Ø mm	Ø mm	Ø mm	Ø mm	A mm	B mm	D mm	۲۵ g
76 01 125	018490	125	X\$X 🏲 🖣	black atramentized	polished	plastic coated	0.4 - 3.0	2.3	1.5	0.6	14.5	16	9	90
76 03 125	018506	125	× 🖍	chrome plated		plastic coated	0.4 - 2.5	1.8	1.0	0.6	14.5	16	9	90
76 05 125	005315	125	2832	chrome plated		with multi-component grips	0.4 - 2.5	1.8	1.0	0.6	14.5	16	9	118
76 12 125	048015	125	* * 1 MM	black atramentized	polished	with multi-component grips	0.4 - 2.5	1.8	1.0	0.6	14.5	16	9	112
76 22 125	048022	125	X\$\$ 🗾 WW	black atramentized	polished	with multi-component grips	0.4 - 2.5				14.5	16	9	107
76 81 125	018544	125	888 🣂 🤜	black atramentized	polished	plastic coated	0.4 - 1.7	1.3	0.8		14.5	16	9	87

KNIPEX X-Cut®

Compact Diagonal Cutters, high lever transmission **DIN ISO 5749**

73

Powerful, light and universal

Cuts precisely finest strands as well as multi-core cables and piano wires

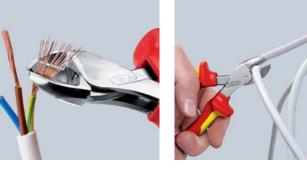
- > high cutting capacity with very little effort thanks to the optimum co-ordination of cutting-edge angle and leverage ratio
- > box-joint design: highest stability with low weight
- > large opening width for thicker cables
- > cuts precisely, even through fine copper wires
- > compact, low-weight construction
- > doubly supported joint axis for heaviest duty
- > universally usable, in the assembly, maintenance and production
- > Chrome vanadium heavy-duty steel, forged, multi stage oil-hardened

73 05 160 T*

Pliers with tether attachment point for mounting a fall protection









73 02 160 73 05 160





Â1000V @€ ▶٩ ⊡

40 % less effort required

compared to diagonal cutters of the same length. With double mounted hinged joint

Box-joint design: highest stability with low weight

								Cutting capacities				
Article No.	EAN 4003773-	∢→ mm		Pliers	Head	Handles	Ø mm	Ø mm	Ø mm	Ø mm	Ø mm	۵ ^۲ ۵ g
73 02 160	075127	160	P€	black atramentized	polished	with multi-component grips	4.8	3.8	2.7	2.2	12.0	175
73 05 160	075134	160		chrome plated		with multi-component grips	4.8	3.8	2.7	2.2	12.0	175
73 05 160 T	080077	160	P₹EJ	chrome plated		with multi-component grips and integrated tether attachment point	4.8	3.8	2.7	2.2	12.0	179
73 06 160	075141	160	会 1000 V @ € ■ ● ● 〔 〔 〕	chrome plated		insulated with multi-component grips, VDE-tested	4.8	3.8	2.7	2.2	12.0	175

High Leverage Diagonal Cutters

- > for very tough, continuous use
- > high cutting performance with minimum effort due to optimum co-ordination of the cutting edge angle and transmission ratio
- > precision cutting edges additionally induction hardened (cutting edge hardness approx. 64 HRC), for all sorts of wire including piano wire
- > Chrome vanadium heavy-duty steel, forged, multi stage oil-hardened

Style 1

with opening spring; to be activated if required

Style 2

angled head offers clearance for gripping

Length 250 mm

the 250-mm-long diagonal cutter is suitable for copper conductors up to 16 $\rm mm^2$ and aluminium conductors up to 35 $\rm mm^2$

74 02 200 / 74 02 250 / 74 22 200 / 74 22 250 T*

Pliers with tether attachment point for mounting a fall protection

20% less effort required

compared to conventional diagonal cutters of the same length. With integrated forged joint axle. For very tough, continuous use



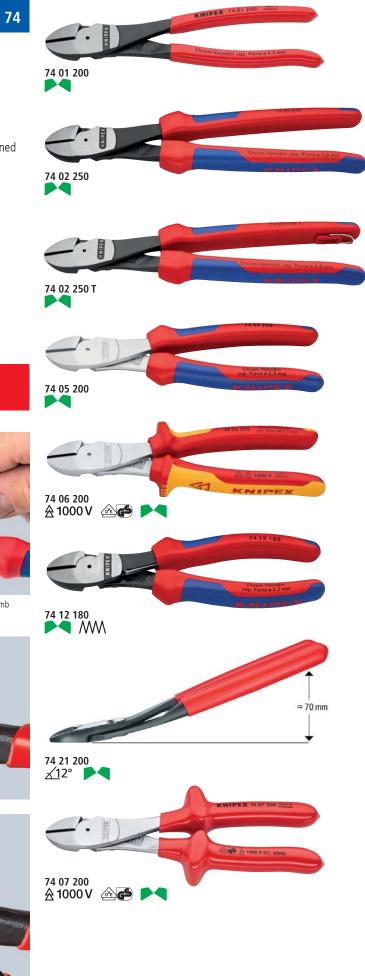
74 12: opening spring in deactivated position



74 12: just gentle sliding with your thumb will activate the opening spring









With integrated forged joint axle for very tough, continuous use

									ing capa	cities	
	EAN	∢ —▶						\bullet			52
Article No.	4003773-	mm		Style	Pliers	Head	Handles	Ømm	Ømm	Ømm	g
74 01 140	039747	140	_					3.1	2.0	1.5	131
74 01 160	033141	160	_		black			3.4	2.5	2.0	178
74 01 180	022008	180		0	atramentized	polished	plastic coated	3.8	2.7	2.2	241
74 01 200	034056	200	_		a la			4.2	3.0	2.5	263
74 01 250	034063	250						4.6	3.5	3.0	391
74 02 140	042419	140						3.1	2.0	1.5	157
74 02 160	023081	160		0	black	polished	with multi-component grips	3.4	2.5	2.0	209
74 02 180	023074	180		0	atramentized	polisileu	with multi-component grips	3.8	2.7	2.2	273
74 02 200	040309	200	-					4.2	3.0	2.5	304
74 02 200 T	080084	200	P9	0	black atramentized	polished	with multi-component grips and integrated tether attachment point	4.2	3.0	2.5	308
74 02 250	042402	250		0	black atramentized	polished	with multi-component grips	4.6	3.5	3.0	437
74 02 250 T	080091	250	٩٩	0	black atramentized	polished	with multi-component grips and integrated tether attachment point	4.6	3.5	3.0	441
74 05 140	039617	140						3.1	2.0	1.5	157
74 05 160	022961	160						3.4	2.5	2.0	209
74 05 180	022978	180		0	chrome plated		with multi-component grips	3.8	2.7	2.2	270
74 05 200	035367	200						4.2	3.0	2.5	303
74 05 250	039754	250						4.6	3.5	3.0	440
74 06 160	040705	160						3.4	2.5	2.0	215
74 06 180	022985	180					insulated with multi-component	3.8	2.7	2.2	280
74 06 200	033820	200	- A 1000 V 🖄 🖨 🕨 🤇	0	chrome plated		grips, VDE-tested	4.2	3.0	2.5	308
74 06 250	041955	250	-					4.6	3.5	3.0	453
74 07 200	018414	200		_			with dipped insulation,	4.2	3.0	2.5	328
74 07 250	018421	250	≙1000 V 🖄 🖨 ► 🗨	0	chrome plated		VDE-tested	4.6	3.5	3.0	510
74 12 160	065111	160			black			3.4	2.5	2.0	209
74 12 180	060192	180		1	atramentized	polished	with multi-component grips	3.8	2.7	2.2	273
74 21 180	069973	180						3.8	2.7	2.2	235
74 21 200	050483	200	<u>∡1</u> 2° ▶ ◀	2	black atramentized	polished	plastic coated	4.2	3.0	2.5	258
74 21 250	045021	250			atrailleiltizeu			4.6	3.5	3.0	390
74 22 200	051831	200					with multi-component grips	4.2	3.0	2.5	300
74 22 200 T	080107	200			black		with multi-component grips and integrated tether attachment point	4.2	3.0	2.5	304
74 22 250	071372	250	<u>∡1</u> 2° ▶ ◀	2	atramentized	polished	with multi-component grips	4.6	3.5	3.0	437
74 22 250 T	080114	250	-				with multi-component grips and integrated tether attachment point	4.6	3.5	3.0	441

KNIPEX TwinForce[®] High Performance Diagonal Cutter DIN ISO 5749

The superior High-Leverage Diagonal Cutter with patented double joint

- > ideal transmission of force due to double-hinged design
- > reliably cuts all types of wire, including steel tape
- > for rough or very fine cutting
- > low cutting impact: gentle on hands. The tension on muscles and tendons is relieved
- > for comfortable cutting, repetitive cutting or extremely hard cutting jobs
- > high degree of stability and zero-backlash due to precisely milled forged-in axles
- > Chrome vanadium heavy-duty steel, forged, multi stage oil-hardened

73 72 180 F

with opening spring to simplify reapplication and for repetitive cutting



The High Performance Diagonal Cutter with opening spring to simplify reapp ication and for repetitive cutting



The opening spring can be easily activated and deactivated by a press of the thumb





							Cutting capacities				
	EAN	-					\bullet				52
Article No.	4003773-	mm		Pliers	Head	Handles	Ømm	Ømm	Ømm	Ømm	g
73 71 180	074762	180		black atramentized	polished	plastic coated	5.5	4.6	3.2	3.0	255
73 72 180	074779	180		black atramentized	polished	with multi-component grips	5.5	4.6	3.2	3.0	280
73 72 180 F	077657	180	M	black atramentized	polished	with multi-component grips	5.5	4.6	3.2	3.0	280

73

TwinForce®

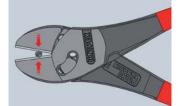


New for diagonal cutters

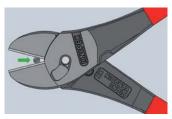
Cuts again 50% easier than the tried and tested KNIPEX High Leverage Diagonal Cutters

The option to reapply the tool. The KNIPEX TwinForce® cuts even 4 mm 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.

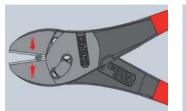
KNIPEX TwinForce® Reapplying



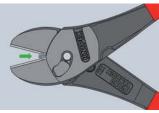
Insert the wires as close to the hinge as possible. In case of cutters with very high transmission, the width of the gap between the cutting edges close to the fulcrum may be less than the thickness of the wire. Wires may slip forward when the cutting starts.



Continue cutting in the same location along the wire. Now cutting is much more easier because the wire remains in place closer to the fulcrum.



First make a notch in the wire using the KNIPEX TwinForce® until the required hand force increases considerably. Now open the pliers and s ide the wire backwards towards the joint.



You can repeat this process if necessary.

Extremely easy cutting with little strain



74

91

High Leverage Centre Cutters DIN ISO 5743

> with integrated forged axle for heaviest duty

- > with precision cutting edges for soft, hard and piano wire
- > cuts thick wires with less effort than other diagonal cutters
- of the same length
- > centric precision cutting edges
- > high cutting performance with minimum effort due to optimum co-ordination of the cutting edge angle and transmission ratio
- > cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC
- > Chrome vanadium heavy-duty steel, forged, multi stage oil-hardened





The cutting edges are in the centre of the cutter head



						Cutting capacities				
	EAN	∢ >				\bullet				5
Article No.	4003773-	mm	Pliers	Head	Handles	Ømm	Ømm	Ømm	Ømm	g
74 91 250	034070	250	black atramentized	polished	plastic coated	5.0	5.0	3.8	3.5	395

KNIPEX CoBolt[®] Compact Bolt Cutters DIN ISO 5743

71

Exceptional cutting performance

- > precision cutting edges for soft and hard wire as well as piano wire
- > cuts components like bolts, nails, rivets, etc. up to 5.2 mm dia.
- > exceptional cutting performance with minimum effort because of unsurpassedly effective lever action design
- cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC
- > Chrome vanadium heavy-duty steel, forged, multi stage oil-hardened

CoBolt® 60% less effort

required compared to conventional high-leverage diagonal cutters. The ingenious lever-action mechanism ensures an extremely favourable lever ratio with very little friction. The cutting force is about 30 times higher than the hand force applied.

Improved cutting performance

Micro-structured cutting edge allows easy cutting of large cross-sections

With gripping surface below the joint for gripping and pulling wires with a diameter as from 1 mm

71 12 200

opening spring and locking device are integrated in the handles also for comfortable work and protected transport

71 02 200 T*

Pliers with tether attachment point for mounting a fall protection







Micro-structured cutting edge allows easy cutting of large cross-sections



With gripping surface below the joint for gripping and pul ing wires with a diameter as from 1 mm



Opening spring and locking device are integrated in the handles also for comfortable work and protected transport

					Cutting capacities				
Article No.	EAN 4003773-	∢ →→ mm	Pliers	Handles	Ømm	Ømm	Ømm	Ømm	Δ <u>Δ</u>
71 01 200	033165		black atramentized	plastic coated	6.0	5.2	4.0	3.6	335
71 02 200	047056	200		with slim multi-component grips	6.0	5.2	4.0	3.6	372
71 02 200	047030	200		1 51	0.0	5.2	4.0	5.0	572
71 02 200 T	080046	200	black atramentized	with multi-component grips and integrated tether attachment point	6.0	5.2	4.0	3.6	376
71 12 200	066859	200	black atramentized	with slim multi-component grips	6.0	5.2	4.0	3.6	375

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

With gripping surface below the joint for gripping and pulling wires with a diameter as from 1 mm

71 32 200 / 71 32 200 T*

opening spring and locking device are integrated in the handles also for comfortable work and protected transport

71 32 200 T*

Pliers with tether attachment point for mounting a fall protection



71 31 200/71 32 200/71 32 200 T The recess in the blade allows easier cutting of thicker wires, e.g. for anchor bolts in false cei ings



71 31 200/71 32 200/71 32 200 T With gripping surface below the joint for gripping and pul ing wires with a diameter as from 1 mm



KNIPEX

							Cutting c	apacities		
	EAN	∢ →				\bullet				52
Article No.	4003773-	mm	Style	Pliers	Handles	Ømm	Ømm	Ømm	Ømm	g
71 31 200	042327	200	3	black atramentized	plastic coated	6.0	5.2	4.0	3.6	330
71 32 200	066880	200			with slim multi-component grips	6.0	5.2	4.0	3.6	370
71 32 200 T	080060	200	3	black atramentized	with multi-component grips and integrated tether attachment point	6.0	5.2	4.0	3.6	374

71 31 200

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

71 22 200 / 71 22 200 T*

opening spring and locking device are integrated in the handles also for comfortable work and protected transport

71 22 200 T*

Pliers with tether attachment point for mounting a fall protection

71 41 200

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



71 21 200 <u>∡2</u>0° ►





						Cutting capacities				
Article No.	EAN 4003773-	∢ →→ mm		Pliers	Handles	Ømm	Ø mm	Ø mm	Ø mm	Δ'Δ q
71 21 200	066866	200	<u>∡2</u> 0° ▶◀	black atramentized	plastic coated	6.0	5.2	4.0	3.6	320
71 22 200	066873	200		black atramentized wit	with slim multi-component grips	6.0	5.2	4.0	3.6	375
71 22 200 T	080053	200	<u>∡2</u> 0° ▶ ₩₩		with multi-component grips and integrated tether attachment point	6.0	5.2	4.0	3.6	379
71 41 200	066897	200	<u>∡2</u> 0° ▶◀	black atramentized	plastic coated	6.0	5.2	4.0	3.6	335



KNIPEX CoBolt[®] XL Compact bolt cutters

71

The compact bolt cutters from KNIPEX now also available in 250 mm length for one and two-hand operation. Up to a 40-fold increase of manual force.

For powerful cutting of larger cross-sections as well as very hard materials

Two-hand operation for maximum cutting force

- > 60% less effort required compared to high leverage diagonal cutters of the same size
- > 40-fold increase of manual force due to special joint design
- > with a gripping surface below the joint for gripping and pulling wires with a diameter from 1.0 mm
- > induction-hardened precision blades, cutting edge hardness approx. 64 HRC
- > Chrome vanadium heavy-duty steel, forged, multi stage oil-hardened

71 01 250 straight blades

71 31 250 blades with recess for easier cutting of larger cross-section

cutting of larger cross-sections thanks to better leverage close to the fulcrum





CoBolt[®]XL









Two-hand operation for maximum cutting force

					Cutting capacities				
	EAN	∢ →						52	
Article No.	4003773-	mm	Pliers	Handles	Ømm	Ømm	Ømm	g	
71 01 250	079637	250	black atramentized	plastic coated	5.6	4.0	3.8	465	
71 31 250	079644	250	black atramentized	plastic coated	6.0	4.3	4.2	465	

Bolt Cutters cut hard components up to 48 HRC

> cutting capacity up to 48 HRC hardness

- > robust cutting edges are additionally induction hardened, cutting-edge hardness approx. 62 HRC
- > forged-in stopper with comfortable shock-absorber
- > good access due to very flat construction of head and joint area

71 72

- > ergonomically angled handles to minimise effort
- > sturdy non-slip two-colour dual component handle sleeves
- > precise adjustment (12 positions) by eccentric bolt
- > high cutting performance with minimum effort due to optimum co-ordination of the cutting edge angle and transmission ratio
- > bolted cutter head, replaceable
- > blade: chrome vanadium heavy-duty steel, forged, multi stage oil-hardened
- > joint: special tool steel, forged
- > handle: steel tube, powder-coated







Forged-in stopper with damping inserts: cushions the cutting stroke comfortably





						(utting capacitie	es				
Article No.	EAN 4003773-	∢ ► mm		Head	Handles	HRC 19 Ø mm	HRC 40 Ømm	HRC 48 Ø mm	۵'۵ g			
71 72 460	066750	460			with multi-component grips	8	6	5	2100			
71 72 610 71 72 760	066767	610		arou atramontized		9	8	7	2550			
	066774	760		grey atramentized		11	9	8	4250			
71 72 910	066781	910				13	10	9	4950			
71 79 460	066804	Snare	outter head for	71 72 460 complete with s	CLEMA							
71 79 610	066811			71 72 610 complete with s								
71 79 760	066828	Spare of	spare cutter head for 71 72 760 complete with screws									
71 79 910	066835	Spare of	are cutter head for 71 72 910 complete with screws									

Concrete Mesh Cutter

- > cutting capacity up to 48 HRC hardness
- > robust cutting edges are additionally induction hardened, cutting-edge hardness approx. 62 HRC
- > forged-in stopper with comfortable shock-absorber
- > good access due to very flat construction of head and joint area
- > ergonomically angled handles to minimise effort
- > sturdy non-slip two-colour dual component handle sleeves
- > precise adjustment (12 positions) by eccentric bolt
- > high cutting performance with minimum effort due to optimum co-ordination of the cutting edge angle and transmission ratio
- > bolted cutter head, replaceable
- > blade: chrome vanadium heavy-duty steel, forged, multi stage oil-hardened
- > joint: special tool steel, forged
- > handle: steel tube, powder-coated





The special shape of the mesh cutter head, 71 82 950, enables it to cut structural steel that is lying down flat

						Cutting capacities			
Article No.	EAN 4003773-	∢-→ mm	Head	Handles	HRC 19 Ø mm	HRC 40 Ømm	HRC 48 Ø mm	۲۵ g	
71 82 950	066798	950	grey atramentized	with multi-component grips	11	9	6	4060	
71 89 950 066842 Spare cutter head for 71 82 950 complete with screws									

71 82 950

71 82



Bolt End Cutting Nippers high lever transmission

DIN ISO 5743

Extraordinary cutting performance: also for piano wire



Particularly efficient for fence construction



Almost flush cutting of bolts, nails etc.

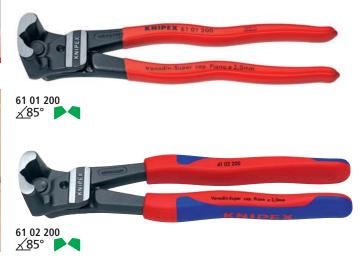
Powerful, compact, comfortable

- > compared to conventional lever-assisted end cutting nippers, greater cutting capacity, less effort required and better handling
- > for all classes of wire including piano wire
- > exceptional cutting capacity due to high-leverage joint
- > cutting edges additionally induction hardened; cutting edge hardness approx. 64 HRC
- > Vanadium steel, forged, multi stage oil-hardened

61 02 200

61

with slim two-colour multi-component sleeves without collar for better handling and easier transport; with large contact surface on the handles for better allotment of pressure and more comfort at work



								Cutting o	apacities		
	EAN	->					\bullet				52
Article No.	4003773-	mm		Pliers	Head	Handles	Ømm	Ømm	Ømm	Ømm	g
61 01 200	033172	200	<u>∡8</u> 5° ▶ ◀	black atramentized	polished	plastic coated	1.0 - 6.0	4.0	3.5	3.0	435
61 02 200	067047	200	<u>∡8</u> 5° ▶ ◀	black atramentized	polished	with slim multi-component grips	1.0 - 6.0	4.0	3.5	3.0	435

67

High Leverage End Cutting Nippers DIN ISO 5748

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





							Cutting of	apacities		
Article No.	EAN 4003773-	∢→ mm	Pliers	Head	Handles	Ømm	Ø mm	Ø mm	Ø mm	۲۵ g
67 01 140	043690	140				4.0	3.1	2.0	1.5	152
67 01 160	040620	160	black atramentized	polished	plastic coated	4.5	3.4	2.5	2.0	237
67 01 200	040637	200	anamentizeu			5.0	3.8	3.0	2.5	318
67 05 140	017929	140				4.0	3.1	2.0	1.5	176
67 05 160	017936	160	chrome plated		with multi-component grips	4.5	3.4	2.5	2.0	266
67 05 200	017943	200				5.0	3.8	3.0	2.5	361

End Cutting Nippers DIN ISO 5748

Head shape provides optimised movement when tightening steel mesh knots during reinforced concrete work

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





						Cu	tting capaci	ties	
Article No.	EAN 4003773-	∢→ mm	Pliers	Head	Handles	Ø mm	Ø mm	Ø mm	۵ ^۲ ۵ g
68 01 160	013792	160				4.0	2.8	2.3	202
68 01 180	013808	180	black	nalishad	plastic control	4.0	3.2	2.5	284
68 01 200	013815	200	atramentized	polished	plastic coated	4.0	3.5	2.8	319
68 01 280	077664	280				4.5	4.0	3.2	467

68

68 01 180

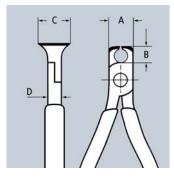
End Cutting Nippers

for mechanics

DIN ISO 5748

69

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



							Cutting ca	apacities						
	EAN	-								А	В	D	С	52
Article No.	4003773-	mm	Pliers	Head	Handles	Ømm	Ømm	Ømm	Ømm	mm	mm	mm	mm	g
69 01 130	017974	130	black atramentized	polished	plastic coated	0.4 - 2.0	1.3	1.0	0.8	16	7.5	10	20	111
69 03 130	018001	130	chrome plated		plastic coated	0.4 - 2.0	1.3	1.0	0.8	16	7.5	10	20	111



Pipe Wrenches and Water Pump Pliers AA

Second St

Z-POP 12 GEP

60R. 54735

Pliers Wrenches	112
Set of pliers wrenches	113
Pliers Wrench XL	114
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Pliers Wrenches

pliers and a wrench in a single tool DIN ISO 5743

Replaces the need for sets of metric and imperial spanners Smooth jaws for damage free installation of plated fittings – working directly on chrome!

- > adjustable tightening tool
- > also excellent for gripping, holding, pressing and bending workpieces
- > zero backlash jaw pressure prevents damage to edges of sensitive components
- > adjustment at the touch of a button directly on the workpiece
- > parallel jaws give a more solid grip; the construction gives infinite adjustment of all widths up to the specified maximum size
- > reliable catching of the hinge bolt: no unintentional shifting
- > the action of the jaws allows quick tightening and release of bolted connections using the ratchet principle
- > lever transmission greater than 10 : 1 for strong gripping power
- > Chrome vanadium electric steel, forged, oil-hardened

Length 125 mm

the mini pliers wrench for precision mechanics; particularly suitable for working on small bolted connections; very good access in very confined areas

Length 150 mm

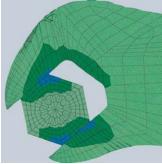
ideal multi-purpose wrench in pocket size; indispensable companion in emergency tool kit

Length 180 mm

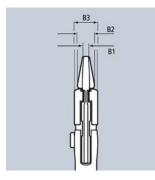
with narrow gripping jaws - for tightening situations that require a slim tool

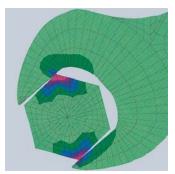
86 05 180 / 86 05 250 T*

Pliers with tether attachment point for mounting a fall protection

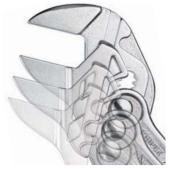


Pliers wrench: zero backlash contact pressure, no damage to edges





Conventional open end wrench: edge pressure causes surface damage



Fast adjustment by pushing a button





86



86 03 150



86 03 180











The smooth jaws grip all parallel surfaces in the capacity range with a high degree of pressure if necessary and open up almost unlimited application possibilities for the pliers wrench: e.g. for tightening locknuts, exerting pressure to activate the adhesive power of contact adhesives, edge breaking in tile work, snapping cable ties, utilisation as a small vice.

PLIERS WRENCHES



Working on plated fittings without damage of the surface



imperial spanners

KNIPE



Ideal for bending operations



The mini pliers wrench for precision mechanics

									C	imensior	าร	
Article No.	EAN 4003773-	∢ —► mm		Pliers	Handles	Inch	mm mm	Adjustment positions	B1 mm	B2 mm	B3 mm	۲ _۵
86 03 125	077497	125				7/8	23	11	3.0	5.0	9.5	105
86 03 150	069676	150				1	27	14	4.7	7.0	10.5	175
86 03 180	035466	180	S	chrome plated	plastic coated	1 3/8	35	13	5.0	8.0	12.0	254
86 03 250	033837	250		platea		1 3/4	46	17	8.0	8.0	14.0	536
86 03 300	041429	300				2 3/8	60	22	9.5	9.5	15.0	729
86 05 150	069928	150			with multi-component grips	1	27	14	4.7	7.0	10.5	193
86 05 180	047162	180			with multi-component grips	1 3/8	35	13	5.0	8.0	12.0	277
86 05 180 T	080121	180	ag	chrome plated	with multi-component grips and integrated tether attachment point	1 3/8	35	13	5.0	8.0	12.0	281
86 05 250	047841	250	1	plateu	with multi-component grips	1 3/4	46	17	8.0	8.0	14.0	571
86 05 250 T	080138	250			with multi-component grips and integrated tether attachment point	1 3/4	46	17	8.0	8.0	14.0	575

Set of pliers wrenches 5-piece

00

> tool roll made of hard-wearing polyester fabric

- > with hook and loop fastener
- > Fitted with 1 each of 86 03 125/150/180/250/300



Article No.	EAN 4003773-			Quantity	۵'۵ g
00 19 55 S4	077817	Set of pliers	wrenches		2060
		86 03 125	KNIPEX Mini pliers wrench, pliers and a wrench in a single tool	1	
		86 03 150	Mini Pliers Wrench, pliers and a wrench in a single tool	1	
		86 03 180	Pliers Wrench, pliers and a wrench in a single tool	1	
		86 03 250	Pliers Wrench, pliers and a wrench in a single tool	1	
		86 03 300	Pliers Wrench, pliers and a wrench in a single tool	1	

Pliers Wrench XL pliers and a wrench in a single tool **DIN ISO 5743**

The unique installation tool now also in 400 mm length For opening widths up to 85 mm / 3 3/8"

> excellent for gripping, holding, pressing and bending workpieces

86

- > optimised adjustment to the workpiece with hand-friendly position of grips
- > reliable catching of the hinge bolt: no unintentional shifting
- > lever transmission greater than 10 : 1 for strong gripping power
- > Chrome vanadium electric steel, forged, oil-hardened



Pliers Wrench XL

adjustable tightening tool - replaces diverse expensive, large open-end wrenches

parallel jaws give a more solid grip; its design allows flexible adjustment up to a maximum size of AF 85 or 3 3/8"

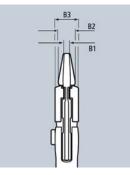
smooth jaws, for damage free installation of quality union joints made from brass, red brass, stainless steel or chrome-plated material

zero backlash jaw pressure prevents damage to edges of sensitive components

the ratchet type principle allows quick and easy tightening and release of bolted connections

push the button for adjustment on the workpiece







								D	imensior	IS	
	EAN	>			€O	\bigcirc]	Adjustment	B1	B2	B3	52
Article No.	4003773-	mm	Pliers	Handles	Inch	mm	positions	mm	mm	mm	g
86 03 400	077312	400	chrome plated	plastic coated	3 3/8	85	25	12.5	16	20	1460

Multiple Slip Joint Spanner DIN ISO 5743



Se f-locking: no s ip on workpieces; less effort required





87

Fine adjustment by pushing a button: fast and comfortable

In operation on rusted nut with rounded edges

The Multiple Slip Joint Spanner 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 have no surfaces capable of being gripped reliably by a conventional spanner can be managed by the exceptionally powerful closing gripping jaws of this spanner.

	EAN	∢ →				\Box	\bigcirc	Adjustment	52
Article No.	4003773-	mm	Pliers	Head	Handles	Inch	mm	positions	g
87 41 250	054566	250	grey atramentized	polished	plastic coated	3/8 - 1 1/4	10 - 32	15	328

85

KNIPEX SmartGrip®

Water Pump Pliers with automatic adjustment DIN ISO 8976

- > ideal for frequent changeovers to workpieces of different sizes
- > automatic adjustment per one-hand 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 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 stable gripping
- > box-joint design: high stability because of the double guide
- > guard prevents operators' fingers being pinched
- > locking lever for space saving transport with reliable closed handles
- > Chrome vanadium electric steel, forged, multi stage oil-hardened



85 01 250

Adjustment to suit the workpiece is automatic with the KNIPEX SmartGrip[®]! Place the outer jaw on the workpiece, squeeze the handles – turn!



	EAN	4-				EO	C]	\bigcirc	50
Article No.	4003773-	mm	Pliers	Head	Handles	Ø Inch	Ømm	mm	g
85 01 250	061304	250	grey atramentized	polished	plastic coated	1 1/4	32	36	370

- > for metric and imperial nuts and screws with widths across flats from 10 to 32 mm (3/8" up to 1 1/4"); self-locking from 17 mm: no slipping on the workpiece
- > zero-backlash gripping of metric or imperial hexagonal headed screws, no rounding of bolt heads
- > reliable and tight gripping of rounded, rusty, or thick coated bolts and screws
- > ideal for work on vehicle brake systems
- > quick tightening of bolted connections using ratchet action
- > adjustment at the touch of a button directly on the workpiece, also possible with one hand only
- > fine adjustment for optimum adaptation to different sizes of workpieces and a comfortable handle width
- > box-joint design: high stability because of the double guide
- > reliable catching of the hinge bolt: no unintentional shifting
- > favourable lever action: optimum transmission of force
- > guard prevents operators' fingers being pinched
- > replaces a set of wrenches, ideal for tightening locknuts
- > Chrome vanadium electric steel, forged, multi stage oil-hardened



KNIPEX Cobra® Hightech Water Pump Pliers DIN ISO 8976

- > adjustment at the touch of a button directly on the workpiece
- > fine adjustment for optimum adaptation to different sizes of 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 stable gripping
- > box-joint design: high stability because of the double guide
- > reliable catching of the hinge bolt: no unintentional shifting
- > guard prevents operators' fingers being pinched
- > Chrome vanadium electric steel, forged, multi stage oil-hardened

87 02 250 / 87 02 250 T* / 87 05 250

with slim two-colour multi-component sleeves without collar for better handling and easier transport

87 02 180 / 87 02 250 / 87 02 300 T*

Pliers with tether attachment point for mounting a fall protection





Fast and firm adjustment directly on the

workniece

Fine adjustment by pushing a button: fast and comfortable









KNIPEX Cobra® – the Hightech Water Pump Pliers.

No more time-consuming presetting of the required opening size. Just position the upper jaw to the workpiece, push button and move close the lower jaw, ingeniously simple.

Cobra®







87 01 180

87

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87 01 300



87 02 250



87 02 250 T











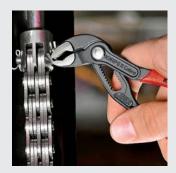
Teeth set against the direction of rotation have a self-locking effect and prevent s ipping on the workpiece





Mini-Cobra®

pocket sized tool with full fledged tool function. Capacity up to 27 mm dia.









Article No.	EAN 4003773-	∢ →→ mm		Pliers	Head	Handles	Ø Inch	O] Ømm		Adjustment positions	۵'۵ g
87 01 125	069935	125					1	27	27	13	85
87 01 150	060116	150					1 1/4	32	30	11	145
87 01 180	022015	180		grey atramentized	polished	with non-slip plastic coating	1 1/2	42	36	18	170
87 01 250	022022	250					2	50	46	25	335
87 01 300	034087	300					2 3/4	70	60	30	530
87 02 180	042396	180				with multi-component grips	1 1/2	42	36	18	196
87 02 180 T	080145	180				with multi-component grips and integrated tether attachment point	1 1/2	42	36	18	200
87 02 250	040316	250				with slim multi-component grips	2	50	46	25	366
87 02 250 T	080152	250		grey atramentized	polished	with slim multi-component grips and integrated tether attachment point	2	50	46	25	370
87 02 300	029144	300				with multi-component grips	2 3/4	70	60	30	580
87 02 300 T	080169	300	_			with multi-component grips and integrated tether attachment point	2 3/4	70	60	30	584
87 03 125	073949	125					1	25	27	13	85
87 03 180	005667	180		chrome plated		with non-slip plastic conting	1 1/2	42	36	18	175
87 03 250	043805	250		chrome plated		with non-slip plastic coating	2	50	46	25	314
87 03 300	041382	300					2 3/4	70	60	30	530
87 05 250	005681	250		chrome plated		with slim multi-component grips	2	50	46	25	355
87 05 300	014126	300		chrome plated		with multi-component grips	2 3/4	70	60	30	579

* Other tools with tethering can be found from page 254 ff

KNIPEX Cobra® XL/XXL Pipe Wrenches and Water Pump Pliers DIN ISO 5743

> greater gripping capacity but much lower weight than comparable pipe wrenches 87

- > fast push-button adjustment directly on the workpiece, no unintentional slipping of the joint
- > fine adjustment for optimum adaptation to different sizes of 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 stable gripping
- > box-joint design: high stability because of the double guide
- > guard prevents operators' fingers being pinched
- > Chrome vanadium electric steel, forged, multi stage oil-hardened



Both the KNIPEX Cobra® XL and XXL offer the performance 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 e.g. grip a 2" pipe fitting and weighs 50 % less than a 2" pipe wrench, which has a much lower gripping capacity. With its handy length of 400 mm, the Cobra® XL also fits into a plumber's tool kit. The Cobra® XXL comes along with the weight of a 2" pipe wrench but offers a back-up gripping capacity up to 4 1/2".







Article No.	EAN 4003773-	∢→ mm	Pliers	Head	Handles	O] Ø Inch	O] Ø mm	∏ mm	Adjustment positions	۵'۵ g
87 01 400	005636	400	grey atramentized	polished	plastic coated	3 1/2	90	95	27	1214
87 01 560	044321	560	grey atramentized	polished	plastic coated	4 1/2	115	120	20	2750



KNIPEX Cobra®...matic Water Pump Pliers DIN ISO 8976

> all features of the KNIPEX Cobra® 87 01 250

Special feature:

- > automatic adjustment at the touch of a button directly on the workpiece
- > the sheltered positioned spring ensures that the pliers close automatically once the push-button is activated (one-hand operation!)



87 11 250 আ∭ ⊆∵ MM

Article No.	EAN 4003773-	∢ → mm		Pliers	Head	Handles	O] Ø Inch	O] ∅ mm	∑_ mm	Adjustment positions	۵'۵ g
87 11 250	035473	250		grey atramentized	polished	with non-slip plastic coating	2	50	46	25	314
87 19 250	022640	Spare s	pring for 87 11 2	50							

87 1

KNIPEX Cobra® QuickSet Hightech Water Pump Pliers **DIN ISO 8976**

Fully open, push, grab! Additional fast adjustment on the workpiece by sliding the pliers handle

- > combines the proven, reliable locking of the hinge bolt with an additional push function which makes it easier to work in very confined and inaccessible areas
- > the adjustment directly on the workpiece is possible by simply sliding the pliers handle
- > securely lock of the hinge bolt with the first workload. The gripping width of the pliers is then fixed and can only be adjusted by pressing the button
- > to re-activate the sliding function, the hinge bolt must be released by pressing the push button and the pliers must be completely opened again

JuickSet

> Chrome vanadium electric steel, forged, multi stage oil-hardened





87 2







87 22 250

Proven Cobra®-functions

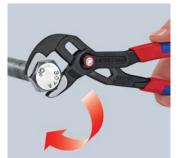
- > self-locking on pipes and nuts:
 - no slipping on the workpiece and low handforce required
- > fine adjustment for optimum adaptation to different sizes
- of workpieces and a comfortable handle width



Press the button - open p iers completely



Press the button - open pliers completely





The hinge bolt locks itse f with the first workload



Article No.	EAN 4003773-	∢→ mm	Pliers	Handles	O] Ø Inch	O] Ømm	∏ mm	Adjustment positions	۲ <mark>۵</mark>
87 21 250	072775	250	arey strementized	plastic coated	2	50	46	25	335
87 21 300	078524	300	grey atramentized	plastic coated	2 3/4	70	60	25	530
87 22 250	077794	250	grey atramentized	with multi-component grips	2	50	46	25	364

KNIPEX Cobra® VDE

Hightech Water Pump Pliers, insulated DIN ISO 8976 IEC 60900 DIN EN 60900

- > adjustment by shifting one jaw directly on to the workpiece: fast, reliable and comfortable handling
- > opening at the touch of a button apart from the workpiece
- > fine adjustment for optimum adaptation to different sizes of workpieces 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 stable gripping
- > box-joint design: high stability because of the double guide
- > guard prevents operators' fingers being pinched
- > Chrome vanadium electric steel, forged, multi stage oil-hardened



The adjustment action to adapt to the workpiece is easy and reliable with the KNIPEX Cobra® VDE: place the upper gripping jaw of the opened pliers on the workpiece, push pliers to close, done!

Article No.	EAN 4003773-	∢ ► mm		Pliers	Handles	O] Ø Inch	O] Ømm	mm	Adjustment positions	۵ ^۲ ۵ g
87 26 250	071495	250	£1000 V @€ আ∭ ⊆	chrome plated	insulated with multi-component grips, VDE-tested	2	50	46	24	340

87

KNIPEX Cobra[®] ES Water Pump Pliers extra-slim DIN ISO 8976

87 5



Very s im design in the complete head and joint area (compared to conventional water pump p iers)

- > ideal for service, maintenance and equipment repair, in automotive and general industry
- > long, narrow jaws
- > particularly good access to the workpiece due to very slim construction of head and joint area
- > firm grip also on flat material due to three-point rest
- > adjustment at the touch of a button directly on the workpiece
- > fine adjustment for optimum adaptation to different sizes of 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 the double guide
- > reliable catching of the hinge bolt: no unintentional shifting
- > favourable lever action: optimum transmission of force
- > guard prevents operators' fingers being pinched
- > Chrome vanadium electric steel, forged, multi stage oil-hardened



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



Grips nuts up to 34 mm (1 5/8") across flats



87 51 250

Article No.	EAN 4003773-	∢ ► mm	Pliers	Head	Handles	O] Ø Inch	O]; Ø mm		max. parallel opening width in mm	max. gripping depth	Adjustment positions	۲۵ g
87 51 250	061267	250	grey atramentized	polished	with non-slip plastic coating	1 1/4	32	34	37	42	19	328

KNIPEX Alligator® Water Pump Pliers DIN ISO 8976

More output and comfort compared to conventional water pump pliers of the same length: 9-notch adjustment positioning for 30% more gripping capacity

Good access to the workpiece due to slim size of 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 stable gripping
- > box-joint design: high stability because of the double guide
- > robust construction, insensitive to dirt; particularly suitable for outdoor work
- > guard prevents operators' fingers being pinched
- > Chrome vanadium electric steel, forged, multi stage oil-hardened

88 02 250 / 88 02 250 T* / 88 05 250

with slim multi-component grips without collar for better handling and easier transport

88 02 250 / 88 02 300 T*

Pliers with tether attachment point for mounting a fall protection

UP.



88



KNIPEX 88 01 250













Se f-locking on pipes and nuts: no slipping on the workpiece; the complete actuating force can be used to turn the workpieces; not having to squeeze the pliers handles reduces the required effort



Alligator®









Conventional water pump pliers

Alligator® 250/300



specially hardened teeth high resistance to wear, allowing durable, reliable gripping

robust adjusting mechanism insensitive to dirt, particularly suitable for outdoor work

notch curved adjustment positioning 30% more gripping capacity, optimised adjustment to the workpiece and a handy handle position, slim design

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

	EAN	∢ ►					EO	[O]	\bigcirc	Adjustment	52
Article No.	4003773-	mm		Pliers	Head	Handles	Ø Inch	Ømm	mm	positions	g
88 01 180	035480	180					1 1/2	42	36	9	180
88 01 250	022992	250		black atramentized	polished	plastic coated	2	50	46	9	319
88 01 300	034094	300		attainentizeu			2 3/4	70	60	9	511
88 02 180	044222	180				with multi-component grips	1 1/2	42	36	9	215
88 02 250	019282	250				with slim multi-component grips	2	50	46	9	357
88 02 250 T	080176	250		black atramentized	polished	with slim multi-component grips and integrated tether attachment point	2	50	46	9	361
88 02 300	029151	300		attainentizeu		with multi-component grips	2 3/4	70	60	9	565
88 02 300 T	080619	300	-			with multi-component grips and integrated tether attachment point	2 3/4	70	60	9	569
88 03 180	042860	180		chromo plated		plastic control	1 1/2	42	36	9	181
88 03 250	005742	250		chrome plated		plastic coated	2	50	46	9	317
88 05 180	060130	180					1 1/2	42	36	9	214
88 05 250	035497	250		chrome plated		with multi-component grips	2	50	46	9	344
88 05 300	042389	300					2 3/4	70	60	9	560
88 06 250	039303	250	≵ 1000 V @€ আ∭ ∑⊑∑	chrome plated		insulated with multi-component grips, VDE-tested	2	50	46	9	374
88 07 250	019343	250	会 1000 V @ €	chromo plated		with dipped inculation VDE tested	2	50	46	9	420
88 07 300	022350	300		chrome plated		with dipped insulation, VDE-tested	2 3/4	70	60	9	661

* Other tools with tethering can be found from page 254 ff

KNIPEX Alligator[®] XL Pipe Wrench and Water Pump Pliers DIN ISO 5743

The classic in 400 mm length Robust construction, insensitive to dirt; particularly suitable for outdoor work

- > good access to the workpiece due to slim size in the head and joint area
- > guard prevents operators' fingers being pinched
- > Chrome vanadium electric steel, forged, multi stage oil-hardened



88 01 400

88



The KNIPEX Alligator[®] XL offers the performance and comfort of a water pump pliers while being 50% lighter in weight and having a greater gripping capacity (3 ½") than comparable pipe wrenches. With their handy length of 400 mm, there is a place for KNIPEX Alligator[®] XL in every tool box.

Robust pliers for very hard applications

gripping surfaces with special hardened teeth, teeth hardness approx. 61 HRC: low wear and stable gripping

self-locking on pipes and nuts: no slipping on the workpiece and low handforce required

box-joint design: high stability because of the double guide

robust adjustment mechanism, insensitive to dirt, easy to clean; particularly suitable for outdoor work

11-notch adjustment for a gripping capacity up to 3 $1\!/\!2$ ", optimised adjustment to the workpiece and a comfortable handle position



Article No.	EAN 4003773-	∢ ► mm	Pliers	Head	Handles	O] Ø Inch	O] Ømm		Adjustment positions	۵'۵ g
88 01 400	075844	400	black atramentized	polished	with non-slip plastic coating	3 1/2	90	95	11	1190

Water Pump Pliers with groove joint DIN ISO 8976

89

- > self-locking on pipes and nuts: no slipping on the workpiece and low hand force required
- > easy, convenient engagement in 5 different positions due to milled tongue
- > non-slip joint
- > jaw profile designed to fit screws and nuts
- > joint design reduces strain of the centre bolt, hence no wear on pivot
- > guard prevents operators' fingers being pinched
- > gripping surfaces with special hardened teeth
- > teeth hardness approx. 61 HRC for tool length 250 mm: low wear and stable gripping
- > Chrome vanadium electric steel, forged, multi stage oil-hardened





89 03 250



	EAN	∢ —▶				EO	EO]	$\bigcirc]$	52
Article No.	4003773-	mm	Pliers	Head	Handles	Ø Inch	Ømm	mm	g
89 01 250	013334	250	black atramentized	polished	plastic coated	1 5/16	34	36	340
89 03 250	015086	250	chrome plated		plastic coated	1 5/16	34	36	338
89 05 250	043836	250	chrome plated		with multi-component grips	1 5/16	34	36	371

90

Mini Water Pump Pliers with groove joint DIN ISO 8976

> easy, convenient engagement in 4 different positions

- > non-slip joint
- > joint design reduces strain of the centre bolt, hence no wear on pivot
- > Chrome vanadium electric steel, forged, oil-hardened





	EAN	∢ —▶				CΙ	O]	\Box	5
Article No.	4003773-	mm	Pliers	Head	Handles	Ø Inch	Ømm	mm	g
90 01 125	035503	125	black atramentized	polished	plastic coated	11/16	17	14	103
90 03 125	050490	125	chrome plated		plastic coated	11/16	17	14	105

Pipe Wrenches 90° DIN 5234

83 1

- > Swedish pattern
- > 90° angled jaws
- > jaws with offset teeth in opposite direction
- > teeth additionally induction hardened
- > I-beam handle design
- > captive adjusting nut
- > red powder coated, jaws bright ground
- > Chrome vanadium electric steel, forged, multi stage oil-hardened



	EAN	4-			τO	τO		52
Article No.	4003773-	mm		Pliers	Ø Inch	Ømm	Inch	g
83 10 010	014188	310			1 5/8	42	1	779
83 10 015	014195	420			2 3/8	60	1 1/2	1415
83 10 020	014201	560	<u>√</u> 90° আ	red powder-coated	2 3/4	70	2	2600
83 10 030	022329	650			4 3/8	110	3	3433
83 10 040	022336	750			5 1/8	130	4	4921

83 2

Pipe Wrenches 45° DIN 5234

- > Swedish pattern
- > 45° angled jaws
- > jaws with offset teeth in opposite direction
- > teeth additionally induction hardened
- > I-beam handle design
- > captive adjusting nut
- > red powder coated, jaws bright ground
- > Chrome vanadium electric steel, forged, multi stage oil-hardened



Article No.	EAN 4003773-	∢— ► mm		Pliers	O] Ø Inch	O] Ø mm	O: Inch	۲ _d
83 20 010	014218	320			1 5/8	42	1	817
83 20 015	014225	430	<u>∡</u> 45° আ	red powder-coated	2 3/8	60	1 1/2	1408
83 20 020	014232	570			2 3/4	70	2	2596



83 10 015 <u>∡9</u>0° আ∭



83 20 015 <u>∡4</u>5° আ∭

Pipe Wrenches S-Type DIN 5234

> slim, S-type jaw

- > jaws with offset teeth in opposite direction
- > teeth additionally induction hardened
- > three-point contact on pipes, self-locking
- > I-beam handle design
- > captive adjusting nut
- > red powder coated, jaws bright ground
- > Chrome vanadium electric steel, forged, multi stage oil-hardened



	EAN	-		EO	EO		52
Article No.	4003773-	mm	Pliers	Ø Inch	Ømm	Inch	g
83 30 005	025221	245		1 1/2	35	1/2	472
83 30 010	014249	320		1 5/8	42	1	836
83 30 015	014256	420	red powder-coated	2 3/8	60	1 1/2	1540
83 30 020	014263	540		2 3/4	70	2	2669
83 30 030	014164	680		4 3/4	120	3	4366

83 6

Pipe Wrenches S-Type with rapid adjustment

- > time-saving, precise adjustment of the gripping width directly on the workpiece at the push of a button
- > less effort required due to self-locking action
- > no unintentional shifting of the pliers handles
- > guard prevents operators' fingers being pinched
- > maximum load capacity thanks to completely hardened handles
- > high wear resistance due to the additionally hardened teeth
- > Chrome vanadium electric steel, forged, multi stage oil-hardened



83 60 010





Article No.	EAN 4003773-	∢ ► mm		Pliers	Handles	Ø Inch	O]; Ø mm	D: Inch	۲ <mark>۵</mark>
83 60 010	075424	330				1 5/8	42	1	955
83 60 015	075677	420		red powder-coated		2 3/8	60	1 1/2	1470
83 60 020	078838	560		···· [·····		2 3/4	70	2	2420
83 61 010	077602	330				1 5/8	42	1	955
83 61 015	077619	420		grey powder-coated	plastic coated	2 3/8	60	1 1/2	1470
83 61 020	077602	560				2 3/4	70	2	2480



83 30 015

83 3

PIPE WRENCHES

Siphon- and Connector Pliers for traps, tube fittings and connectors DIN ISO 5743

81

For siphons, tube fittings and connectors up to 80 mm diameter Fine adjustment for ideal adjustment to diverse diameters Robust, heavy duty

- > ideal for tightening and loosening siphon screw connections, plastic pipe fittings and round union nuts
- > for connectors and couplings with screw connection, such as Cannon circular connectors
- > for gentle loosening of hoses on nozzles
- > 25 adjustment positions, box-joint design
- > ergonomic handle geometry
- > Chrome vanadium electric steel, forged, oil-hardened

81 01 250 / 81 03 250

with serrated gripping jaws; up to \emptyset 80 mm

81 11 250 / 81 13 250 with exchangeable plastic jaws for sensitive surfaces; up to Ø 75 mm



81 03 250



81 11 250



81 13 250



Article No.	EAN 4003773-	∢ ► mm		Pliers	Head	Handles	Working Capacity Ø mm	Adjustment positions	۲۵ g	
81 01 250	078463	250		black atramentized	polished		25 - 80	25	355	
81 03 250	078487	250		chrome plated		with non-slip	25 - 80	25	355	
81 11 250	078470	250		black atramentized	polished	plastic coating	10 - 75	25	355	
81 13 250	078494	250		chrome plated			10 - 75	25	355	
81 19 230	11 19 230 050124 2 pairs of plastic jaws for 81 11 250 / 81 13 250									



Special Pliers and Control Cabinet Keys 15 WIDE

+MIPE+

Filesenbrechua

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Ear Clamp Pliers



Suitable for universal use, for 1-ear and 2-ear clamps (Oetiker system or similar)

- > for the simple and reliable mounting of 1-ear and 2-ear clamps
- > no damage to press points on the ear clamps
- > the slim head permits good accessibility in confined areas
- > versatile use for clamps on CV boots, cooler and fuel lines, air pressure systems, compressors
- > durable and strong
- > High-grade special tool steel, forged, oil-hardened

10 99 1220

especially suitable for universal use thanks to the additional side jaw





10 98 1220





Sealing the fluid hose on the connecting piece



Sealing the pneumatic hose on the quick action coup ing



Sea ing the hose connection on central lubrication

10 99 1220



Using the front press nib



Sealing the pneumatic hose on the quick action coup ing using the side press nib



Using the side press nib



Sea ing the fluid hose on the connecting piece using the side press nib

	EAN	<->				55
Article No.	4003773-	mm	Pliers	Head	Handles	g
10 98 1220	080749	220	black atramentized	polished	plastic coated	494
10 99 1220	080756	220	black atramentized	polished	plastic coated	494

Cutter for ribbon cable

> for crushing-free cutting of ribbon cable up to 56 mm width

- > exchangeable cutting base with try square for rectangular cuts
- > with opening spring and locking device
- > tool body: tool steel, rolled, oil-hardened
- > blade: standard trapezoidal blade, replaceable





Article No. 94 15 215	EAN 4003773- 046011	←→ mm 215		Tool chrome plated	Handles with plastic grips	Blade length mm 56	۵ ^۲ ۵ g 346
94 19 215	046219	Set wit	h 10 spare blades for 94 1	5 215 / 94 35 215			

94

3

94

15

Mitre Shears

for plastic and rubber sections

- > for crushing-free cutting of plastic, rubber and soft timber sections; also for ribbon cable up to 56 mm width
- > exchangeable cutting base with try square for 45°-cuts and markings for 60°-, 75°-, and 90°-cuts
- > with opening spring and locking device
- > tool body: special tool steel, rolled, oil-hardened
- > blade: standard trapezoidal blade, replaceable







	EAN	4-				Blade length	52
Article No.	4003773-	mm		Tool	Handles	mm	g
94 35 215	046028	215		chrome plated	with plastic grips	56	397
94 19 215	046219	Set wit	h 10 spare bla	des for 94 15 215 / 9	94 35 215		

SPECIAL PLIERS

Vinyl Shears also for cable ducts



- > for cutting and shortening cable ducts, also for plastic material up to 4 mm thickness
- > special lever transmission
- > very effective blade geometry
- > tool body: high-grade chrome vanadium electric steel, oil-hardened
- > blade: special tool steel, oil-hardened





95 02 21 MM (PATENTED)

95	02	21:	blade	lenath	110	mm	for	cutting	wide	cable	ducts

Article No.	EAN 4003773-	∢- ► mm		Tool	Handles	Cutting capacities mm	Blade length mm	۲ <u>ک</u> g
95 02 21	052128	275	MM	burnished	with multi-component grips	max. 4.0	110	665

95

03

Shears for KEVLAR[®] fibres

- > only for cutting fibres of KEVLAR[®] in optical fibre cables, not recommended for other materials
- > precisely ground blades with serration prevent the fibres from slipping and guarantee a clean cut
- > riveted precision joint, for low-friction movement and smooth and even cutting of the thin KEVLAR® fibres
- > hard-chrome plated, ground surface
- > shears body: chrome vanadium electric steel, oil-hardened
- > user-friendly handles: plastic, impact-proof





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

	EAN				52
Article No.	4003773-	mm	Shears	Handles	g
95 03 160 SB	043362	160	chrome plated	plastic coated	85

Combination Shears

- > for cutting cardboard, plastics, aluminium, brass and copper foils
- > not suitable for steel wire or iron sheets
- > precision ground, hardened blades
- > with opening spring and locking device
- > guard prevents operators' fingers being pinched
- > adjustable bolted joint
- > shears body: surgical steel, stainless, vacuum-hardened
- > handles: plastic, impact-resistant

95 05 185

angled shape - for easy execution of long cuttings; ergonomically shaped plastic handles





	EAN	∢ —▶				52
Article No.	4003773-	mm		Head	Handles	g
95 05 140	019589	140	MM	polished	plastic coated	67
95 05 185	060277	185	<u>∡4</u> 0° MM	polished	plastic coated	115
95 05 190	019602	190	MM	polished	plastic coated	116

90

20

95 05

Pipe Cutter for plastic conduit pipes and hoses

- > for cutting thin walled plastic pipes (conduit plastic pipes) and flexible hoses, also with fabric reinforcement, of plastic and rubber up to 25 mm dia. / 1" exterior dia.
- > not suitable for cutting cables
- > with opening spring and locking device
- > tool body: plastic, fibreglass-reinforced
- > blades: special tool steel, oil-hardened, interchangeable







With replaceable blade

Article No.	EAN 4003773-	∢→ mm		Cutting capacities Ø mm	۲ q
90 20 185	067122	185	MM	25	172
90 29 185	067139	Spare	blade for	90 20 185	



SPECIAL PLIERS

Pipe Cutter for composite pipes and protective tubes

- > for cutting composite pipes with diameters from 12 to 25 mm and for cutting flexible protective tubes with a diameter of 18 - 35 mm without damaging a potentially pipe inside
- > a calibration arbor can be fitted, for example for Geberit composite pipes with 11.5 and 15 mm dia.
- > tool body: high-grade chrome vanadium electric steel, oil-hardened
- > blades: special tool steel, oil-hardened, interchangeable



90 25 20 MATENTED

90

25



Composite pipes of 12 - 25 mm dia. are cut cleanly and without deformation



Clean cut of protective tubes 18 - 35 mm diameter



Article No.	EAN 4003773-	∢ →→ mm		Tool	Handles	Cutting capacities Composite pipes Ø mm	Cutting capacities Protective tubes Ø mm	Blade length mm	۵'۵ g			
90 25 20	046004	210	MM	galvanized	with multi-component grips	12 - 25	18 - 35	25	332			
90 29 01	031932	Spare &	re blade for 90 25 20 (composite pipes)									
90 29 02	031949	1 pair (r of spare blades for 90 25 20 (protective pipes)									
90 29 15	031956	Calibra	tion ar	bor for 90 25 20	(Geberit pipes)							



Pipe Cutter for composite and plastic pipes

90 25

- > for cutting thick walled plastic and composite pipes with diameters from 26 to 40 mm
- > 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
- > blades: special tool steel, oil-hardened, interchangeable





Clean cut of thick walled plastic and composite pipes

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





Article No.	EAN 4003773-	∢ → mm		Tool	Handles	Cutting capacities Ø mm	Cutting edge length mm	۲۵ g
90 25 40	045182	210	MM	galvanized	with multi-component grips	26 - 40	40	500
90 29 40	045199	Spare b	plade fo	or 90 25 40				

94

10

Pipe Cutter

for plastic conduit pipes (electrical installation work)

- > for clean cutting of plastic pipes (e.g. plastic conduit pipes) with 6 - 35 mm dia.
- > not suitable for cutting cables
- > blade is replaceable and can be retracted from any position
- > low force requirement due to special blade geometry and optimum transmission
- > minimum operator fatigue due to ergonomic handle design and incremental ratchet blade feed
- > housing: die-cast aluminium, red lacquered
- > blade: special tool steel, oil-hardened





Article No.	EAN 4003773-	∢ ► mm		Body	Cutting capacities Ø mm	Cutting edge length mm	۲ _۵ ع
94 10 185	047025	185	MM	die-cast aluminium body, red lacquered	6 - 35	35	583

SPECIAL PLIERS

Punch Lock Riveters

90 4

90 42 250 MM

90 42 340

> to join metal section sheets used in dry walling with a lock seam

> for U- and C-shaped sections with max 1.2 mm metal (2 x 0.6 mm)

- > minimum handforce required due to optimum lever transmission
- > pliers body: special tool steel, rolled, oil-hardened

90 42 250 for one-hand operation



The punching tool is squeezed through the

metal section sheets

Setting the p iers for connection of two metal section sheets



Sheet Metal Nibbler



Notching and chip breaking in a single pass

90 55



Notching without chip breaking

> for cutting iron, copper or aluminium sheet metal up to max. 1.2 mm thickness, plastic up to max. 2.0 mm thickness > materials are cut without deformation

- > clean cut edges no trimming activities needed
- > with chip breaker
- > easy handling
- > cutting width: 2.7 mm
- > tool body: special tool steel, rolled, oil-hardened
- > blades: special tool steel, oil-hardened, interchangeable



	EAN	<->						5
Article No.	4003773-	mm		Tool		Handles		g
90 55 280	026730	280		nickel plated		with multi-component grips		461
90 59 280	027355 Spare blade fo 90 55 280							

Notching Pliers

90 61

- > special pliers for notching recesses into plastic ledges and plastic casings for electric and sanitary installation
- > clean cut edges no trimming activities needed
- > easy handling
- > with opening spring, opening limiter and locking lever
- > pliers body: special tool steel, rolled, oil-hardened





The KNIPEX Notching Pliers produces 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.

	EAN	∢ —▶					5
Article No.	4003773-	mm		Pliers	Handles	Capacity	g
90 61 16	051947	250		humiched	with plastic grips	16 x 32 mm	403
90 61 20	051954	250	MM	burnished	with plastic grips	20 x 29 mm	414

84

Cycle Pliers DIN ISO 5743

> for very narrow screw connections

> Special tool steel, forged, oil-hardened

84 11 200 straight head

84 21 200 20° angled head



84 21 200 ∡20° আ∭

Article No.	EAN 4003773-	∢ ► mm		Pliers	Head	Handles	Recess Ø mm	Head thickness mm	۵'۵ g
84 11 200	051923	200		black atramentized	polished	plastic coated	6 / 10	3.5	177
84 21 200	051930	200	<u>√</u> 20° আ	black atramentized	polished	plastic coated	6 / 10	3.5	182



Spring Hose Clamp Pliers

85 51

- > rotatable, universal grip inserts for reliably gripping the clamps in all positions
- > extremely good leverage which allows clamps to be opened easily without great effort
- > quick-set adjustment:
- adjusts by shifting directly onto the workpiece
- > slim head design; narrow head width, rotatable grip inserts: an ideal tool, especially in confined areas
- > can be used for standard, space-saving and spring wire hose clamps and for spring band clamps up to 70 mm nominal size
- > maximum jaw opening 80 mm; over 40 mm clamping range
- > Chrome vanadium electric steel, forged, oil-hardened



85 51 250 A ∑⊑____



The proven features of the Cobra® also apply to the KNIPEX Spring Hose Clamp Pliers

- > less effort required due to extremely good transmission ratio
- > first class guard to prevent fingers being pinched
- > reliable gripping with hand-friendly handle position
- > fine adjustment ensures a precise fit to suit the most diverse clamp sizes
- > opens at the touch of a button
- > box-joint design: high stability due to the double guidance











A single pair of pliers for clamps and spring band clamps of different sizes up to 70 mm. Adapts to all positions due to rotatable grip inserts. Secure position of clamps in the pliers nevertheless guaranteed.

APPLICATION AREAS CARS / TRUCKS: air intake, cooling, charged air, water return flow, thermostat, fuel, heating

Article No.	EAN 4003773-	∢→ mm		Pliers	Handles	Capacity	Adjustment positions	۲۵ g
85 51 250 A	077329	250	S	grey atramentized	with non-slip plastic coating	max. 70 mm	25	340
85 59 250 A 077336 Spare parts assortment grip inserts, for 85 51 250 A / 85 51 250 AF								

SPECIAL PLIERS

Spring Hose Clamp Pliers with retainer

The locking device enables simple and secure work on clamps under tension without effort One-hand release

- > rotating, universal grip inserts for reliably gripping the clamps in all positions
- > extremely good leverage which allows clamps to be opened easily without great effort
- > slim head design; narrow head width, rotating grip inserts make this an ideal tool, especially in confined areas
- > can be used for standard, space-saving, spring wire hose clamps and for spring band clamps up to 70 mm nominal size
- > maximum jaw opening 80 mm; allows more than 40 mm clamping range
- > Chrome vanadium electric steel, forged, oil-hardened





85 51



Article No.	EAN 4003773-	∢ →→ mm		Pliers	Handles	Capa	bacity	Adjustment positions	Δ ['] Δ g
85 51 250 AF	078623	250	S	grey atramentized	plastic coated	max. 7	70 mm	19	350
85 59 250 A 077336 Spare parts assortment grip inserts, for 85 51 250 A / 85 51 250 AF									

Hose Clamp Pliers

To open and close Click clamps

- > rotating jaw inserts for the safe actuation of clamps in any position good leverage which allows clamps to be opened and closed again comfortably and easily without a great deal of effort
- > for easy working on fuel hoses, vacuum pipes and suction nozzles and many other applications
- > additional function: detach hoses gently using the serrated jaw
- > slim head design; narrow head width, rotating grip inserts make this an ideal tool, especially in confined areas
- > Chrome vanadium electric steel, forged, oil-hardened



85 51 250 C

85

51





Serrated gripping jaws for easy loosening of tight hoses

The proven advantages of the Cobra® also apply to this KNIPEX Hose Clamp Pliers

- > guard prevents operators' fingers being pinched
- > reliable gripping with hand-friendly handle position
- > box-joint design for high stability due to double guide









	EAN	-			5			
Article No.	4003773-	mm	Pliers	Handles	g			
85 51 250 C	078517	250	grey atramentized	plastic coated	340			
85 59 250 C	078999	Spare	Spare parts assortment grip inserts for 85 51 250 C					

SPECIAL PLIERS



90 70 220 MM

Article No.	EAN 4003773-	∢→ mm		Pliers	Finish	Δ̈́Δ
90 70 220	019411	220	MM	red powder-coated	powder coated	251



	EAN	∢ —▶			52
Article No.	4003773-	mm	Pliers	Head	g
91 00 200	013754	200	black atramentized	polished	158

Upholstery pliers

- 91
- > for the professional fixing of seat covers on profiled seats to the seat frame with all popular upholstery clips
- > Securely insert upholstery clips, guide and hold: the special groove fixes the upholstery clips in the correct position
- > easy positioning of the upholstery clips: a closing spring holds the pliers closed, the clip can be securely positioned and pressed
- > upholstery clips can be easily pressed together due to a good transmission ratio of the pliers
- > user-friendly operation thanks to multi-component grips
- > durable and strong
- > Special tool steel, forged, oil-hardened





	EAN	∢ —▶			52
Article No.	4003773-	mm	Pliers	Handles	g
91 92 180	080725	185	mirror-polished	with multi-component grips	195

Tile Breaking Pliers

91

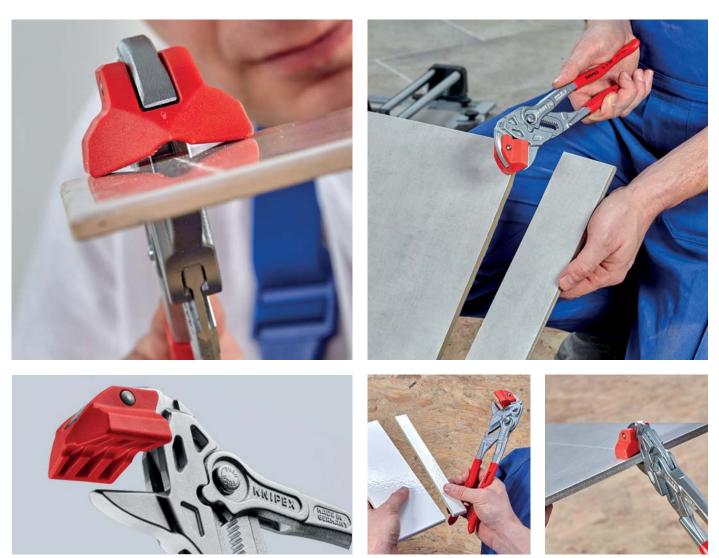
Work without cutting-off machine, particularly for fine strips. For less mess, dust, noise and effort. For the precise cutting (breaking) of tiles and porcelain stoneware after scoring with a tile cutter

Ideal for long and thick tiles

- > ideal protection of tiles against damage: replaceable positioning jaw made from soft, stable plastic
- > great crushing force thanks to 10-fold increase of manual force
 > easily adjusted to the required tile thickness at the press
- of a button > Chrome vanadium electric steel, forged, oil-hardened







Plastic positioning jaw: tilting for a clean break line and optimum protection of the tiles against damage

Article No.	EAN 4003773-	4→ mm		Pliers	Handle	d'A
91 13 250	079538	250	S	chrome plated	plastic coated	560
91 19 250 01	079545	Spare	jaw for 91 13 25	50		

Glass Breaking Pincer

> for breaking glass to a scored line

> Special tool steel, forged, oil-hardened



91 31 18 III

Article No.	EAN 4003773-	∢ ≻ mm	Pliers	Head	Handles	Jaw width mm	۵'ک g
91 31 180	069744	180	black atramentized	polished	plastic coated	24	245

91 3

Glass Nibbling Pincers DIN ISO 5743

91

> 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

91 71 160

narrow version, with opening spring



Article No.	EAN 4003773-	∢→ mm		Pliers	Head	Handles	Jaw width mm	۲ _۵ ع
91 51 160	014355	160		black atramentized	polished	plastic coated	9.5	148
91 71 160	019565	160	■ MM	black atramentized	polished	plastic coated	4.0	141

91 6

Flat Nose Grozing Pliers DIN ISO 5743

> with soft gripping jaws

> for trimming glass edges, e. g. when making leaded glass windows

> Special tool steel, forged, oil-hardened



	EAN	∢ —▶				Jaw width	52
Article No.	4003773-	mm	Pliers	Head	Handles	mm	g
91 61 160	019527	160	black atramentized	polished	plastic coated	9.5	141

Halogen Bulb Exchange Pliers

30 41

- > for the installation of wedge base bulbs
- > gripping surfaces plastic coated
- > Chrome vanadium electric steel, forged, oil-hardened





	EAN	-				52
Article No.	4003773-	mm	Pliers	Head	Handles	g
30 41 160	048480	160	black atramentized	polished	plastic coated	120

Magnetic LED Lamp Strong. Bright. Compact.



- > for illuminating dark working areas
- > attachment to tool by means of strong magnets
- > very compact dimensions
- > approx. 24 hours of lighting, with 2 replaceable button cells (CR1220)
- > snap-hook fastening
- > impact-resistant plastic housing



00 11 V50



Article No.	EAN 4003773-	ے'ک g
00 11 V50	075387	8





CONTROL CABINET KEYS

KNIPEX TwinKey[®] for all standard cabinets and shut-off systems

10 profiles. 2 crosses. 1 key. All established locking systems.

- > multifunctional key for the actuation of locking systems from the areas of facilities engineering (heating and sanitation, air conditioning, electro technology), 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: 1.0 x 7 mm slot and PH2 cross slot
- > key and reversible bit joined by stable stainless steel wire
- > quality surface coating
- > weight-optimised zinc die-cast design



Well thought out equipment, quality processing.

The KNIPEX TwinKey[®] has eight arms and consists of two cross keys that are held inside each other with a magnet.







00

11

	EAN	-	O]		- O -]	⊖ ∃		55
Article No.	4003773-	mm	Ømm	Ømm	Ømm	Ømm	Ømm	g
00 11 01	074670	95	5/6-7/8-9/10-11	7 - 8 / 9 - 10 / 11 - 12	3 - 5	6	6 - 9	135



CONTROL CABINET KEYS

Control Cabinet Keys for all standard cabinets and shut-off systems

- > 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, mains switchboards, etc.
- > with adapter for 1/4" bits chained to key
- > additional bit adapter for 1/4" bits inside one profile
- > Zinc die-casted

Profi-Kev

00 11 02

short version, total length 44 mm

00 11 03

long execution, total length 76 mm



00 11 03

00

00 11

Article No.	EAN 4003773-	∢— ► mm	O⊐ mm	∆ ⊒ mm	-O=1 mm	۵ ^۲ ۵ g
00 11 02	048947	44	5/6/8	9	3 - 5	65
00 11 03	041658	76	5/6/8	9	3 - 5	88

for all standard shut-off systems

- > key for heating, air conditioning, sanitary and building technology, e.g. for door and window handles or for radiator-bleeding
- > with bit insert: slot 1.0 x 7 mm and cross recess PH2
- > with adapter for 1/4" bits chained to key
- > additional bit adapter for 1/4" bits inside one profile
- > total length: 90 mm
- > Zinc die-casted



00 11 04

Article No.	EAN 4003773-	∢→ mm	O⊒ mm	∆ ⊒ mm	mm	۲ g
00 11 04	048954	90	5/7/8	9 - 10	6/7/8/9	86

Universa for all standa	al Key ard cabinets and	l shut-off	systems	00 11	-170		E	
and water, ai technical inst > 9 different di	r conditioning ar tallations in build ie-cast zinc key-p ble chain and sn 90 mm	id ventilat lings, etc. rofiles in	ering, the supply of gas ion systems, industry, 1 tool		00 11 06	COL		
	EAN	∢ —▶	O∃		<u>v</u>] (0)	- O -]	○ ∃	52
Article No.	4003773-	mm	mm		mm	mm	mm	g
00 11 06	071334	90	5/6/7-8/9-10		7 / 8-9 / 10 - 11	3 - 5	6	220

00

Universal Key "Construction" 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 1 tool
- > "Construction" version with plug-in, magnetically held support: catch for locks with profile cylinder hole and male square in steps
- > with bit adapter for 1/4" bits with magnet
- > with detachable chain and snap hook
- > total length: 157 / 95 mm
- > Zinc die-casted

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and the second s

00 11 06 V01

EAN		4-	O]	\mathbf{O}	- O -1	₽∃		52
Article No.	4003773-	mm	Ømm	Ømm	Ømm	Ømm	Ømm	g
00 11 06 V01	075394	160	5/6/7-8/9-10	7 / 8 - 9 / 10 - 11	3 - 5	6	6/7/8/9/10	255

CONTROL CABINET KEYS

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.

- > four different zinc die-cast key profiles in a single key
- > with bit adapter for 1/4" bits with magnet
- > total length: 97 mm
- > plastic body, varnished



00 11 06 V02

00





	EAN	∢ —▶	O∋	\bigcirc	• O];	5
Article No.	4003773-	mm	mm	mm	mm	g
00 11 06 V02	075400	97	5/6/7-8	9	3 - 5	70

Pen-Style Control Cabinet Key for all standard cabinets and shut-off systems

00 11

- > easy to carry pen-style control cabinet key with fastening clip
- > four different key profiles can be utilised 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, mains switchboards, 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 2 reversible bits: cross recess PH / slot 7.0 x 1.2 mm and TX20 / TX25
- > tool body: plastic, fibreglass-reinforced
- > key profiles: zinc die-casted







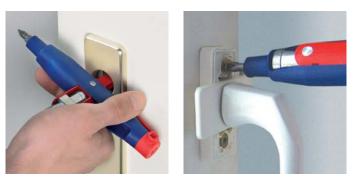
	EAN	∢ ►	O]	\bigcirc	- O -1	52
Article No.	4003773-	mm	mm	mm	mm	g
00 11 07	063018	145	5/6/8	9	3 - 5	95

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 utilised by swivelling the key holder

00

- > multi-purpose wrench for access on construction sites with profiles for the areas of heating, air conditioning, plumbing and building technology, e.g. for door and window handles or for radiator-bleeding
- > universal 1/4" bit adapter for standard bits (permanent magnet for retaining)
- > additional bit adapter for 1/4" bits inside one key profile
- > with inserted bit: cross recess PH2 and possibility of safekeeping a second bit
- > tool body: plastic, fibreglass-reinforced
- > key profiles: zinc die-casted



00 11 08	2	

	EAN	-	O∃	\		5
Article No.	4003773-	mm	mm	mm	mm	g
00 11 08	063025	145	5/8	9	6/7/8/9	142

Pen-Style Control Cabinet Key with voltage and magnetic field detector for all standard cabinets and shut-off systems







- > easy to carry pen-style control cabinet key with fastening clip
- > contactless detection of alternating current with optical indication (red LED); range of voltage 50 - 600 V; frequency range 50 - 60 Hz
- contactless detection of magnetic fields with optical indication (green LED)
- > start button

00

11

- > battery saving automatic switch-off. The device switches off automatically after 2 minutes not in use.
- > indicated by means of a bright LED: start-up self test, battery control and live conductor close-by
- > battery case with bayonet catch
- > four different key profiles can be utilised 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, mains switchboards, etc.
- > universal 1/4" bit adapter for standard bits (permanent magnet for retaining)

- > tool body: plastic, fibreglass-reinforced
- > key profiles: zinc die-casted

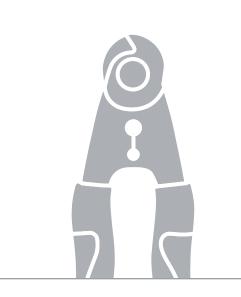
Cable and Wire Rope Shears

95 62 190

CrV cap

6)d=

Cable Shears	154
Cable Shears with twin cutting edge	155
Electricians Shears	156
Cable Cutters (ratchet action)	158
Wire Rope Shears	162
Bowden Cable Cutter	163
Wire Rope and Cable Cutters	163



CABLE AND WIRE ROPE SHEARS

Cable Shears

95

- > for cutting copper and aluminium single conductors as well as multiple stranded cables
- > not suitable for 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
- > guard prevents operators' fingers being pinched
- > adjustable bolted joint, self-retaining screw
- > High-grade special tool steel, forged, oil-hardened

Style 2

internal opening spring, protected and captive

Style 4

multifunctional tool for working on NYM cable from 3 x 1.5 mm² to 5 x 2.5 mm² (cutting, stripping insulation); universal stripping area for both solid conductor cross-sections; reliable alignment of the cable in the stripping area due to V-shaped blade geometry

95 12 165 T*

Pliers with tether attachment point for mounting a fall protection





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



95 41 165: with stripping function

Article No.

95 11 165

95 12 165

95 16 165

95 21 165

95 22 165

95 26 165

95 41 165

95 12 165 T

EAN

4003773-

040323

029182

080190

039648

069805

069812

069980

078609

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



The locking device keeps shears with spring inside the joint closed











					Cutting capacities			
∢ —▶					•			52
mm		Style	Tool	Handles	Ømm	mm ²	AWG	g
165		1	burnished	plastic coated	15	50	1/0	215
165	81	1	burnished	with multi-component grips	15	50	1/0	250
165	•	1	burnished	with multi-component grips and integrated tether attachment point	15	50	1/0	254
165	£ 1000 V 🏝 🚭 🗣 🖺 🖫	1	chrome plated	insulated with multi-component grips, VDE-tested	15	50	1/0	262
165		2	burnished	plastic coated	15	50	1/0	215
165		2	burnished	with multi-component grips	15	50	1/0	254
165	≙ 1000 V 🏝 🚭 🗣 🖺 Š MM	2	chrome plated	insulated with multi-component grips, VDE-tested	15	50	1/0	275
165	� ≝\$ <i>\</i> \\\\	4	burnished	plastic coated	12	35	1/0	220

Cable Shears with twin cutting edge

95

- > for cutting copper and aluminium cables
- > not suitable for 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 \emptyset 20 mm can be cut in one-hand operation
- > less effort required due to favourable lever ratio and optimised cuttingedge geometry
- > guard prevents operators' fingers being pinched
- > adjustable bolted joint, self-retaining screw
- > High-grade special tool steel, forged, oil-hardened



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 conductors in the rear part are cut. Initial cut in the front profile, final cut in the rear profile – to keep it as easy as possible.











The twin cutting edge allows a comfortable handle position in all cutting situations within the specified cutting capacity.

						Cutting capacities			
	EAN	-				•			52
Article No.	4003773-	mm		Tool	Handles	Ømm	mm ²	AWG	g
95 11 200	043928	200		burnished	plastic coated	20	70	2/0	283
95 12 200	047834	200		burnished	with multi-component grips	20	70	2/0	324
95 16 200	026761	200	A 1000 V 🏤 🚭 🕃 🛒	chrome plated	insulated with multi-component grips, VDE-tested	20	70	2/0	340
95 17 200	026952	200	🚖 1000 V 🖄 😭 🔂 🝧 🕤	chrome plated	handles with dipped insulation, VDE-tested	20	70	2/0	360

CABLE AND WIRE ROPE SHEARS

Cable Shears

95

- > not suitable for steel wire and hard drawn copper conductors
- > precision ground, hardened blades
- > no crushing, slight deformation of the cable only
- > guard prevents operators' fingers being pinched
- > adjustable bolted joint
- > shears body: surgical steel, stainless, vacuum-hardened
- > handles: plastic, impact-proof

95 05 165

cuts cables up to 10 mm dia. / 24 mm²; with opening spring and locking device; blades made of stainless steel; oil-hardened and tempered

95 06 230

for copper single conductors up to 16 mm², multiple stranded wires up to 50 mm², fine stranded up to 70 mm² and aluminium conductors multiple stranded wires up to 70 mm²; easy cutting with one-hand operation due to high transmission ratio; stainless - special grade - steel, oil-hardened and tempered



						Cutting capacities			
	EAN	∢ —▶				•	•		52
Article No.	4003773-	mm		Head	Handles	Ømm	mm ²	AWG	g
95 05 165	019596	165		polished	plastic coated	10	24	3	111
95 06 230	006305	230	🛧 1000 V 🖄 🚭 🚭 🖺 🍒	polished	plastic insulated, VDE-tested	16	50	1/0	274

Electricians' Shears

95

Precisely ground blades with fine serration for a clean, non-slip cut Cutting edge with integrated cable cutter With plastic belt case

- > universal shears for electricians
- > handles with multi-component grips, fibreglass-reinforced
- > cutting edges made from stainless steel, hardness of cutting edges 56 HRC











	EAN	- >	55
Article No.	4003773-	mm	g
95 05 155 SB	077725	155	110

Cable Shears

95

Short design, length only 500 mm Low weight, high leverage

- > for cutting copper and aluminium single conductors as well as multiple stranded cables
- > not suitable for steel wire and wire ropes
- > precision ground, hardened blades
- > low weight
- > guard prevents operators' fingers being pinched
- > adjustable bolted joint
- > cutter head: vanadium electric steel, forged, oil-hardened
- > handles: aluminium tube, high-strength



Large cutting capacity: max. 27 mm dia. / 150 mm 2

						Cutting of	apacities		
	EAN	∢ —▶				•	•		52
Article No.	4003773-	mm		Head	Handles	Ømm	mm ²	AWG	g
95 12 500	069966	500	• • • • • • • • • • • • • • • • • • • •	burnished	with multi-component grips	27	150	5/0	1090
95 17 500	026785	500	🚖 1000 V 🖄 🚭 😂 🖺 🖫	polished	handles with dipped insulation, VDE-tested	27	150	5/0	1477

Cable Shears

95

- > for cutting copper and aluminium single conductors as well as multiple stranded cables
- > not suitable for steel wire and wire ropes
- > precision ground, hardened blades
- $\ >$ clean and smooth cut without crushing and deformation
- > favourable lever ratio due to toggle lever
- > guard prevents operators' fingers being pinched
- > adjustable bolted joint
- > bolted cutter head, replaceable
- > cutter head: high-grade chrome vanadium electric steel, forged, oil-hardened
- > handles: steel tube



						Cutting ca	apacities		
	EAN	4- >				•	•		5
Article No.	4003773-	mm		Head	Handles	Ømm	mm ²	AWG	g
95 21 600	025252	600		polished	with plastic grips	27	150	5/0	1836
95 27 600	021797	600	£ 1000 V 🖄 🖨 🛠 📲 🖫	polished	handles with dipped insulation, VDE-tested	27	150	5/0	2301
	004000	c		105 27 600					
95 29 600	021803	Spare	cutter head for 95 21 600	/ 95 2/ 600					



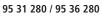
95 17 500 ☆ 1000 V 🏤 🚭 😌 🝧 🕤

CABLE AND WIRE ROPE SHEARS

Cable Cutters (ratchet action)

95 3

- > for cutting copper and aluminium single conductors as well as multiple stranded cables
- > not suitable for steel wire and wire ropes
- > precision ground, hardened blades
- > clean and smooth cut without crushing and deformation
- > one-hand 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 low weight and compact design can be used even in confined areas
- > guard prevents operators' fingers being pinched
- > High-grade special tool steel, forged, oil-hardened



suitable for aluminium sector cable up to 4 x 150 \mbox{mm}^2



95 31 280: Large cutting capacity: max. 52 mm dia. / 380 mm²



Ratchet principle and two-stage ratchet drive for easier cutting



95 31 250/280: fixed handle with support area as an aid to position the cutters on a flat surface







95 31 280



95 36 250 ☆1000 V 준 � MM ௺

						Cutting o	apacities		
	EAN	4-					•		52
Article No.	4003773-	mm		Tool	Handles	Ømm	mm ²	MCM	g
95 31 250	043935	250	� MM £ 5	black lacquered	with multi-component grips	32	240	500	676
95 31 280	043942	280	\$ MM 5 5	black lacquered	with multi-component grips	52	380	750	860
95 36 250	026884	250	≙1000 V @ 🚭 🤁 MM 🛒	black lacquered	insulated with multi-component grips, VDE-tested	32	240	500	652
95 36 280	026891	280	≙ 1000 V @@ � (\\\\) 💕	black lacquered	insulated with multi-component grips, VDE-tested	52	380	750	835
95 39 250	022244	Movah	le spare blade for 95 31 250 / 9	15 36 250					
			1						
95 39 280	025283	Movab	le spare blade for 95 31 280 / 9	5 36 280					

Cable Cutters (ratchet principle, 3-stage)

95 3

Sturdy. Easy to use. Stable. Innovative ratchet-drive. For cable up to 60 mm diameter.

- > easy handling due to low weight (825 g) and compact construction (320 mm length) – also usable in confined areas
- > cutting through copper and aluminium cables with diameters of up to 60 mm in one-hand and two-hand 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 steel wire and wire ropes)
- > innovative three-stage ratchet-drive with high leverage for easy cutting in one-hand and two-hand operation
- > fixed handle with support area for putting down the pliers when cutting
- > High-grade special tool steel, forged, oil-hardened













95 36 320

The innovative three gear drive permits three operating modes:

- > Fast working with full lift of handles and one-handed operation when cutting through insulation material
- > Powerfully sliding the sickle knife forward when cutting through the stranded conductor with two hand through use of the central lifting area (handling opening of between 1/3 and 2/3)
- > Powerfully pushing the sickle knife forward with one hand to cut through the stranded conductor through use of the first third of the handle lift with one or two hands

First manual ratchet-action cable cutter for one-hand and two-hand operation for cutting copper and aluminium cables with diameters of up to 60 mm!

							Cutting c	apacities		
	EAN	4-					•	•		42
Article No.	4003773-	mm		Tool	Head	Handles	Ømm	mm ²	MCM	g
95 32 320	075172	320	@ MM E 5	black atramentized	polished	with multi-component grips	60	600	1200	825
95 36 320	075189	320	≙ 1000 V @€ � /\\\\ €`\$	black atramentized	polished	insulated with multi-component grips, VDE-tested	60	600	1200	830
95 39 320 01	07571/	Pivot c	utter renair kit for (95 32 320 and 95 36 320						
95 39 320 01				95 32 320 and 95 36 320						

CABLE AND WIRE ROPE SHEARS

Cable Cutter (ratchet action) for steel wire armoured cables (SWA cable)

95 3

Cuts through steel wire armoured cables with a diameter of up to 45 mm / 380 mm² (e.g. 4 x 95 mm²) using one or two-handed operation

Sturdy. Easy to use. Stable.

- > simple handling due to low weight (800 g) and compact design (315 mm length) – can also be used in confined areas
- > precision ground blades and induction hardened cutting edges cut smoothly and neatly without crushing
- > innovative high leverage three-stage ratchet-drive
- > support area for putting down the pliers when cutting
- > not suitable for cutting ACSR cable and wire rope!
- > High-grade special tool steel, forged, multi stage oil-hardened



95 32 315 A

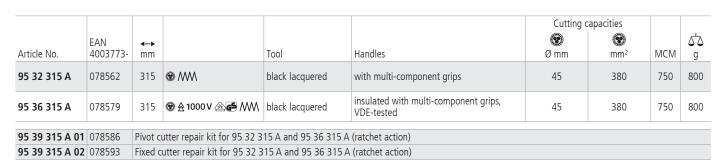




95 36 315 A



Precision milled and induction hardened cutting edge



Cable Shears
(ratchet action)
with telescopic handles

95 32

Cable shears with adjustable telescopic handles allowing angular positioning

- > for cable diameters up to 38 mm, handles can be positioned at an angle to set the optimum handle width, which makes the shear also suitable for work in confined areas
- > comfortable work thanks to ratchet action and low weight
- > heavy duty telescopic handles made of oval aluminium tubing; extendable up to 770 mm for maximum leverage on large cable diameters; retractable down to 570 mm for minimum space requirements during transport
- > replaceable cutting head
- > extensive cutting range up to max. Ø 38 mm or max. 280 mm² (e.g. 4 x 70 mm² NYY) in copper and aluminium cables
- > easier, neater cut due to optimised cutting-edge geometry
- > adjustable bolted joint
- > cutting head: special quality high-grade tool steel, oil-hardened
- > handles: high-strength oval aluminium tubing



Handles adjustable in length and angular position for easier work: set the handle length to the optimum lever for powerful cutting; put the handles at an angle for a comfortable gripping position

						Cutting c	apacities		
	EAN	-				₿	•		52
Article No.	4003773-	mm		Head	Handles	Ømm	mm ²	MCM	g
95 32 038	071556	570	•	burnished	with multi-component grips	38	280	550	1980
		· 1	·	·					
95 39 038	073260	Spare cutter head for 95 32 038							

Cable Cutters (ratchet action)

with telescopic handles

95 32

- > for copper and aluminium single conductors as well as multiple stranded cables – also with hard rubber or plastic sheath
- > not suitable for steel wire and wire ropes
- > also suitable for cables with iron sheath reinforcement
- > little hand force required for cutting due to optimum transmission ratio
- > high cutting capacity due to two-hand 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
- > handle length with multiple position adjustment from
- 400 610 mm (short transport length, individual adaptation to working conditions)

95 32 060

tool length: 600 - 810 mm; weight only 3820 g

95 32 100

tool length: 650 - 860 mm; weight only 4980 g



95 32 060

						C	utting capacitie	es		
A I	EAN	-				•	•	MCM	5	
Article No.	4003773-	mm		Head	Handles	Ømm	mm ²	MCM	g	
95 32 060	071563	600	•	burnished	with multi component gring	60	740	1400	3820	
95 32 100	071570	650	W	buttistieu	with multi-component grips	100	960	1900	4980	
				· · · · · · · · · · · · · · · · · · ·						
95 39 720	025290	Movab	le spare blade	for 95 31 720 / 95 32 (060 (ratchet action)					
95 39 870	025306	Movab	/able spare blade for 95 31 870 / 95 32 100 (ratchet action)							

CABLE AND WIRE ROPE SHEARS

Wire Rope Shears forged
95
6
Double function: neat cutting, precise crimping

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

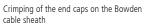
95 62 190 T*

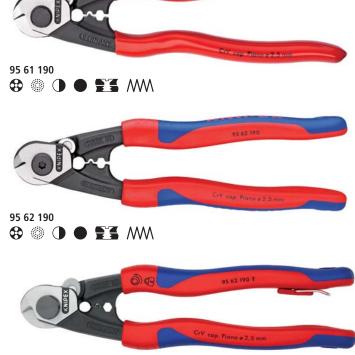
Pliers with tether attachment point for mounting a fall protection





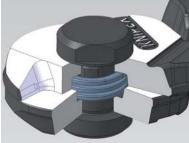
Crimping of the end ferrule onto the traction cable





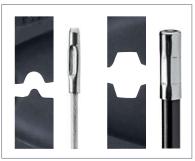
95 62 190 T 🔁 🌑 🛈 🗢 🖭 MM





Internal opening spring

Transport lock and opening limiter



Crimp profiles

							Cutting c	apacities		
Article No.	EAN 4003773-	∢ ► mm		Head	Handles	Ø mm	Ø mm	Ø mm	Ømm	۲ ^۲ ۵
95 61 190	040651	190		polished	plastic coated	7.0	5.0	4.0	2.5	314
95 62 190	071976	190		polished	with multi-component grips	7.0	5.0	4.0	2.5	314
95 62 190 T	080206	190	♦۞◑●ॾॖॕॎॴ	polished	with multi-component grips and integrated tether attachment point	7.0	5.0	4.0	2.5	318

Cuts all wire ropes without splaying, including those that are extremely

strong

Bowden Cable Cutter



- > for Bowden cables and soft wire rope up to 3.0 mm 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 device
- > cutting edges additionally induction hardened
- > High-grade special tool steel, forged, multi stage oil-hardened





						Cutting capacities	
	EAN	∢ —▶				A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	52
Article No.	4003773-	mm	Shears	Head	Handles	Ømm	g
95 61 150	065197	150	black atramentized	polished	plastic coated	3.0	205

95

6

Wire Rope and ACSR-Cable Cutters 95

- > for wire ropes and steel rods, copper and aluminium cables
 > suitable for cutting overhead cables with strain relief wire
- (ACSR-cables)
- > angular cutting blades allow cutting of single rope wire
- > optimum transmission ratio for high cutting performance
- > bolted cutter head, replaceable low weight
- > cutter head: high-grade special tool steel, oil-hardened
- > handles: aluminium, high-strength





95 81 600

with reinforced cutter head for higher performance, also cuts piano wire

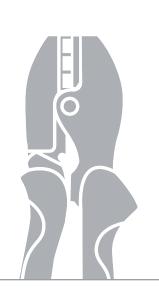
							Cutting o	apacities			
	EAN	∢ →				•					5
Article No.	4003773-	mm		Head	Handles	mm ²	Ømm	Ømm	Ømm	AWG	g
95 71 445	014522	445	♦♥₽ĭ	polished	with plastic grips	95	10.0	7.0		3/0	1083
95 71 600	014539	600	♦♥₽₹	polished	with plastic grips	150	14.0	9.0		5/0	1716
95 77 600	025313	600	£ 1000 V 🕄 💮 🖺 👅	polished	with dipped insulation	150	14.0	9.0		5/0	2359
95 81 600	025344	600	♦♥₽₽	polished	with plastic grips	150	16.0	10.0	4.5	5/0	2256
95 79 445	025320	Spare of	pare cutter head for 95 71 445								
95 79 600	025337	Spare of	pare cutter head for 95 71 600 / 95 77 600								
95 89 600	025351	Spare o	cutter head for 95 81 6	500							

Crimping Pliers and Crimp Assortments

Manager 91 52 36 Marines

1.

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Crimp Grip Pliers

- > for solder-free electrical connections
- > quick release lever
- > high contact pressure with minimum handforce using toggle lever transmission
- > reproducible crimping quality with high tensile strength because of zero point lock
- > adjustable crimping pressure
- > Special steel, high-strength



97 00 215 A

Article No.	EAN 4003773-	∢→ mm		Pliers	Applications	Capacity mm ²	AWG	۵ ^۲ ۵ g
97 00 215 A	006497	215	A 100	burnished	insulated terminals and plug connectors	0.5 - 6	20 - 10	520

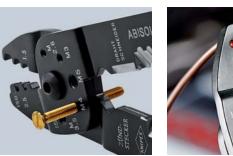
97 21 215

97 00

Crimping Pliers

97

- > 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 2.6 / M 3 / M 3.5 / M 4 and M 5
- > bolted joint for higher stability and even movement
- > Special steel, high-strength











KNIPEX 97 21 2

L ___





Article No.	EAN 4003773-	∢ → mm			Pliers	Handles	Applications	Capacity mm ²	AWG	۵۵ g
97 21 215	019688	230	<i>I</i>		black lacquered	with multi-component grips	insulated terminals and cable connectors	0.75 - 6	18 - 10	224
97 21 215 B	019695	230	and the second se	٨	black lacquered	with multi-component grips	non-insulated open plug-type connectors (plug width 6.3 mm)	0.5 - 2.5	20 - 13	290
97 21 215 C	019701	230	A	V	black lacquered	with multi-component grips	uninsulated terminals and cable connectors	0.5 - 6	20 - 10	290
97 22 240	070726	240	<i>,</i>	Ъ	black	with multi-component	insulated terminals and cable connectors	0.75 - 6	18 - 10	300
97 22 240	070720	240	and the second se	^	lacquered	grips	non-insulated open plug-type connectors (plug width 6.3 mm)	0.5 - 2.5	20 - 13	300
97 32 240	079491	240	<i>I</i>		black	with multi-component	insulated terminals and cable connectors	1.5 - 6	15 - 10	300
57 52 240	075491	240	A	V	lacquered	grips	uninsulated terminals and cable connectors	0.5 - 6	20 - 10	300

Insertion Tool for LSA-Plus and identical constructional design

97 40

- > tool for putting on boards, sockets and fields
- > pushing down and cutting in one operation
- > for UTP and STP cables, conductor 0.4 0.8 mm dia.
- > with integrated pulling hook and release blade
- > housing: plastic, impact-proof



97 40 10





Putting down and cutting the cable in one operation

With integrated pulling hook



	EAN	∢ —▶			Capacity	52
Article No.	4003773-	mm	Head	Applications	Ømm	g
97 40 10	044895	175	burnished	UTP- and STP-cables, LSA-Plus and identical	0.4 - 0.8	100



KNIPEX MultiCrimp[®] Crimping Pliers with changer magazine

97 33

- > just one tool for the most common crimping applications
- > crimping dies changed quickly and easily without any additional tool
- > sorted and predected storage of the interchangeable dies in a round magazine
- > comfortable, powerful crimping pliers in professional quality
- > same reliable crimping results as with fixed crimping dies
- > repetitive, high crimping quality due to precision dies and integral lock (self-releasing mechanism)
- > Chrome vanadium electric steel in special quality, oil-hardened
- > round magazine: plastic, fibreglass-reinforced



Changing position: service lever opens out for parallel jaw positioning



Changing the crimping dies: unlock the magazine position, take out the set of dies which the pliers have been pushed on



Fold in the service lever and press the p iers - ready for use again



97 33 01

Crimping pliers with round magazine and three interchangeable crimping die sets for non-insulated open plug type connectors (plug width 4.8 + 6.3 mm) from 0.5 - 6 mm²; for insulated terminals, plug connectors and butt connectors from 0.5 - 6 mm² and for insulated and non-insulated end sleeves (ferrules) from 0.25 - 6 mm²

Now also for insulated and non-insulated end sleeves (ferrules) 10 / 16 / 25 mm² Universal indent crimping die for non-insulated connectors



97 33 02

Crimping pliers with round magazine and five interchangeable crimping dies for non-insulated open plug type connectors (plug width 4.8 + 6.3 mm) from 0.5 - 6 mm²; for insulated terminals, plug connectors and butt connectors from 0.5 - 6 mm²; for insulated and non-insulated end sleeves (ferrules) from 0.25 - 6 mm²; for insulated and non-insulated end sleeves (ferrules) with 10 / 16 / 25 mm² and for non-insulated crimp terminals. tube and compression cable lugs in accordance with DIN 46234 and DIN 46235 and non-insulated crimp, butt and press connectors in accordance with DIN 46341 and DIN 46267

Compact, inexpensive and light-weight crimping pliers for fitting and repairs. The electrician needs only one tool now instead of five as before.





Magazine for crimping dies can be carried on a belt





Clearly visible marking on the crimping dies with pictograms

Article No.	EAN 4003773-	← ► mm				Applications	Capacity mm ²	AWG	۵ ^۲ ۵ g		
97 33 01	066927	250	(Cali	M		non-insulated open plug type connectors (plug width 4.8 + 6.3 mm)	0.5 - 1 1.5 - 2.5 4 - 6	20 - 10	770		
					MM	insulated terminals, plug connectors and butt connectors	0.5 - 1 1.5 - 2.5 4 - 6	20 - 10			
07 22 02					-	insulated and non-insulated end sleeves (ferrules)	0.25 - 0.75 1 - 1.5 2.5 4 6	23 - 10			
97 33 02	066934	250	(Cali	٨		non-insulated open plug type connectors (plug width 4.8 + 6.3 mm)	0.5 - 1 1.5 - 2.5 4 - 6	20 - 10	870		
						insulated terminals. plug connectors and butt connectors	0.5 - 1 1.5 - 2.5 4 - 6	20 - 10			
					MM	insulated and non-insulated end sleeves (ferrules)	0.25 - 0.75 1 - 1.5 2.5 4 6	23 - 10			
						insulated and non-insulated end sleeves (ferrules)	10 / 16 / 25	7 / 5 / 3			
			OV-	¥	-	non-insulated crimp terminals, tube and compression cable lugs in accordance with DIN 46234 and DIN 46235 and non-insulated crimp, butt and press connectors in accordance with DIN 46341 and DIN 46267	0.5 - 1 1.5 - 2.5 4 - 6 10	20 - 7			
97 39 05	070078	Crimpir	na dies, for i	non-insula	ted open	plug type connectors (plug width 4.8 + 6.3 mm)					
97 39 06	070085					plug connectors and butt connectors					
97 39 08	070092		-			nsulated end sleeves (ferrules)					
97 39 09	077763	Crimpin	ng dies, for i	insulated a	and non-i	nsulated end sleeves (ferrules)					
97 39 13	070108	Crimpin	ng dies, for i	non-insula	ited crimp	terminals, tube and compression cable lugs in					
97 39 13 A	077770	accorda	ordance with DIN 46234 and DIN 46235 and non-insulated crimp, butt and press connectors in accordance with DIN 46341 and DIN 46267								
97 39 30	070115	Crimpir	ng dies, for	compressi	on joints a	according to DIN 46267					
97 39 90	070061	Change	er Magazine	e, empty							

Crimp System Pliers for exchangeable crimping dies

- > just one tool for almost 1,000 crimping applications
- > almost parallel crimping die 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, re-adjustable
- > optimum transmission of force due to lever action for fatigue-reduced operation
- > ergonomically designed handles
- > different locators for precise positioning of the connectors
- > crimping dies for applications not covered in the range offered here, may be available on request
- > Chrome vanadium electric steel in special quality, oil-hardened



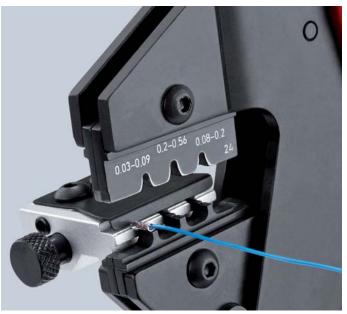


97

43

97 43 200 with crimping dies 97 49 06 for insulated terminals, plug connectors and butt connectors

97 43 200 with crimping dies 97 49 09 for end sleeves (ferrules)



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





97 43 05

with attached crimping dies for non-insulated open plug-type connectors (4.8 and 6.3 mm connector width)

9743 06

with attached crimping dies for insulated terminals and plug connectors

97 43 200

comes 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

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.

Article No.	EAN 4003773-	∢→ mm			Pliers	Handles	Applications	Capacity mm ²	AWG	۲۵ g
97 43 200	030812	200		MM	burnished	with multi- component grips	see crimping dies table			988
97 43 200 A	071587	200		MM	burnished	with multi- component grips	see crimping dies table			574
97 43 05	031031	200	(See		burnished	with multi- component grips	Crimp System Pliers for non-insulated open plug- type connectors (4.8 and 6.3 mm connector width)	0.5 - 6	20 - 10	618
97 43 06	031048	200	<i></i>		burnished	with multi- component grips	Crimp System Pliers for insulated terminals plug connectors and butt connectors	0.5 - 6	20 - 10	610

KNIPEX eCrimp Electromechanical Crimp System Pliers for exchangeable crimping dies

97 43

- > strong electromechanical drive, no hydraulic components, no leakages
- > max. pressing force of the jaws approx. 11 kN
- > ergonomically optimised, user-friendly working height during workshop operation
- > LED working light for targeted illumination of the crimping area low noise level
- > long servicing intervals (up to 25,000 crimping actions)! The KNIPEX eCrimp is designed to only require servicing after 25,000 crimping actions. This means the intervals between servicing the electromechanical crimping pliers is 2.5 : 1 in relation to conventionally actuated crimping pliers. The pliers are therefore available for crimping use for considerably longer. They do not need to be sent away frequently for servicing. High availability without downtimes while being serviced
- > powerful li-ion rechargeable battery (12 V; 1.5 Ah; 18 Wh); charge time approx. 30 min; no memory effect
- > approx. 170 operating cycles for plug-in connectors with 10 $\rm mm^2$ nominal size with a single battery charge
- > tether attachment point to prevent falling during field work



97 43 E

97 43 E with euro plug

97 43 E AUS with plug adapter for AS/NSZ 3112 (AUS+NZ)

97 43 E UK with plug adapter for BS 5733 (GB)

97 43 E US with plug NEMA 1-15P (USA / Canada / Mexico)



The KNIPEX eCrimp is the first electromechanically actuated model of crimping pliers in the world. The possible use of over 40 KNIPEX crimping dies and locators as well as more than 1,000 special crimping dies from the proven Crimp System Pliers (97 43 200). Its universal application range makes it an essential tool in the workshop and for rough field work.

	EAN	Mains voltage/		52
Article No.	4003773-	frequency	Connector socket	g
97 43 E	076858	230 V / 50 Hz	CEE 7/16	1960
97 43 E UK	076865	230 V / 50 Hz	BS 5733	1960
97 43 E AUS	076872	230 V / 50 Hz	AS/NSZ 3112	1960
97 43 E US	077008	120 V / 60 Hz	NEMA 1-15P	1960
97 43 E 01	076889	Spare Storage Battery for k	(NIPEX eCrimp	

Crimping Dies for Crimp System Pliers

for different applications 1,000 special crimping dies upon request)

97 49	

Article No.	EAN 4003773-			Applications	Capacity mm ²	AWG	Capacity SW mm	Sleeves Ø mm
97 49 04	030850	19 and	M	non-insulated open plug type connectors (plug width 2.8 + 4.8 mm)	plug width 2 8 mm: 0.1 - 0.25 plug width 2.8 mm: 0.5 - 1 plug width 4.8 mm: 0.5 - 1 plug width 4.8 mm: 1.5 - 2.5	27 - 13		
97 49 05	030867	(Salt	<u>~</u>	non-insulated open plug type connectors (plug width 4.8 + 6.3 mm)	0.5 - 1 1.5 - 2.5 4 - 6	20 - 10		
97 49 06	030836	<i></i>		insulated terminals, plug connectors and butt connectors	0.5 - 1 1.5 - 2.5 4 - 6	20 - 10		
97 49 07	077749	-		heat shrinkeable sleeve connectors	0.5 - 1 1.5 - 2.5 4 - 6	20 - 10		
97 49 08	030874		V	insulated and non-insulated end sleeves (ferrules)	0.25 - 0.75 1 - 1.5 2.5 4 6	23 - 10		
97 49 09	030881		\mathbf{V}	-	10 / 16 / 25	7 / 5 / 3		
97 49 10	076896		V	non-insulated tubular cable lugs and crimp terminals in accordance with DIN 46237 and non-insulated butt and crimp connectors in accordance with DIN 46341	0.75 / 1.5 / 2.5 0.5 - 0.75	13 15 - 17 19 - 20		
97 49 11	076902		~	non-insulated crimp terminals, tube and compression cable lugs in accordance with DIN 46234 and DIN 46235 and non- insulated crimp, butt and press connectors in accordance with DIN 46341 and DIN 46267	4 / 6 / 10	7 / 10 / 11		
97 49 14	077756	of a	~	non-insulated crimp terminals, tube and compression cable lugs in accordance with DIN 46234 and DIN 46235 and non- insulated crimp, butt and press connectors in accordance with DIN 46341 and DIN 46267	0.5 - 1 1.5 - 2.5 4 - 6 10			
97 49 15	043164		<u>~</u>	plug connectors (plug width 6.3 mm) and non-insulated open plug type connectors (plug width 4.8 mm)	plug width 6 3 mm: 1.25 - 2.5 plug width 4 8 mm: 1.25 - 2.5 plug width 4.8 mm: 3 - 6	17 - 13 17 - 10		
97 49 16	040675	<i>,</i>	~	insulated terminals + cable connectors	10 16	7 / 5		
97 49 18	063186		V	twin end sleeves	2 x 6 / 2 x 10 / 2 x 16	2 x 10 2 x 7 2 x 5		
97 49 19	030898		V	insulated and non-insulated end sleeves (ferrules)	35 / 50	2 / 0		
97 49 20	045069	(F-connectors for TV and satellite connections			7.0 / 8.4 / 8.1	7.7 / 9.5 / 9.5
97 49 23	052135		V	non-insulated terminals + cable connectors	16 + 25	5 + 3		
97 49 24	030911	- Sall	~	D-Sub; HD 20; HDE plugs	0.03 - 0.09 0.2 - 0.56 0.08 - 0.2	32 - 20		
97 49 25	079798	- SAL		Micro-Fit™	0.35 - 0.75 / 0.5 - 1.0 / 0.2 - 0.5	20 / 22-24 / 26-30		

	EAN				Capacity		Capacity SW	Sleeves
Article No.	4003773-	all a		Applications Mini-Fit®	mm ²	AWG	mm	Ømm
97 49 26	079804	 				16 / 18 / 20-24		
97 49 27	079811	S.M.S	<u>-</u>	MQS-Stecker compression joints according	0.25 / 0 35 / 0.5			
97 49 30	030904	Frank		to DIN 46267	1.5 - 4	15 - 11		
97 49 35	034315	\$	~	spark plug connectors and distributors (snap-on sleeves, saw tooth couplings, threaded sleeves, ignition cable sleeves and ignition distributor couplings)	1	17		
97 49 40	030959	()		Coax connectors RG 58, 59, 62, 71, 223			5.4 / 6.48 / 1.72	6.4 / 7.6 / 2.1
97 49 44	041443	and the second	<u>~</u>	rolled contacts	0.14 - 0.25 0.3 - 0.5 0.75 - 1.5	26 - 15		
97 49 50	030966	6 30°		Coax connectors/Car phone RG 58, 174, 188, 316			3.25 / 4.52 / 5.4 / 1.72 / 1.07 / 0.72	3.9 / 5.4 / 6.4 / 2.1 / 1.3 / 0.95
97 49 54	041450	en.ml	~	modular plugs	0.5 - 1 0.5 - 1 1.5 - 2.5 1.5 - 2.5	20 - 13		
97 49 59	073734			solar cable connectors Helios H4 (Amphenol)	2.5 + 4 + 6	13 - 10		
97 49 60	030928			turned contacts (HTS + Harting)	0.14 - 4	26 - 11		
97 49 61	045137			turned contacts	1.5 / 2.5 / 4 / 6	10/11/13/15		
97 49 62	063179			solar cable connectors (Huber + Suhner)	2.5 + 4	13 + 11		
97 49 63	066675		▲▲	solar cable connectors (Huber + Suhner)	4 + 6	11 + 10		
97 49 64	044055			ABS connectors in motor vehicles	1 - 6	17 - 10		
97 49 65	066682	and states		solar cable connectors MC3 (Multi-Contact)	2.5 - 6	13 - 10		
97 49 66	066699	-	~	solar cable connectors MC4 (Multi-Contact)	2.5 - 6	13 - 10		
97 49 66 4	072096	- Ale	<u>~</u>	solar cable connectors MC4 (Multi-Contact)	4	11		
97 49 66 6	072102		<u>~</u>	cutting - stripping - crimping	6	10		
97 49 67	066705	a bis	~	solar cable connectors (Hirschmann)	2.5 - 6	13 - 10		
97 49 68	066712	C. Carro		solar cable connectors (Tyco)	1.5 - 6	15 - 10		
97 49 69 1	072119			solar cable connectors gesis®	1.5 - 2.5	15 / 13		
97 49 69 2	072126			solar PST 40 (Wieland)	4 - 10	11 - 7		
97 49 70	030942	S	آسی آ	Western plugs	4 / 6 / 8-pole RJ 10; 11; 12; 45			
97 49 71	075066	- tok	<u>~</u>	solar cable connectors MC4 (Multi-Contact)	4 - 10	11 - 7		
97 49 72	076957	-		solar cable connectors MC3 (Multi-Contact)		7 / 10 / 11		

Article No.	EAN 4003773-		Applications	Capacity mm ²	AWG	Capacity SW mm	Sleeves Ø mm
97 49 74	044062	*	unshielded Molex plugs (short design)	4 / 6 / 8-pole RJ 10; 11; 12; 45			
97 49 76	047513	<u> </u>	shielded Stewart plugs				
97 49 81	042778	K	f bre optic connectors, e.g. Harting			3.0 / 4.95 / 6.5	3.5 / 6.0 / 7.5
97 49 82	042785	K	f bre optic connectors, e.g. Telegärtner			3.25 / 3.65 / 4.52	3.6 / 4.0 / 5.4
97 49 83	044079		f bre optic connectors, e g. FSMA-, ST-, SC STSC- / K-connectors	· +		3.65 / 4.2 / 5.0	4.3 / 5.4 / 6.0
97 49 84	042792		f bre optic connectors, e.g. Huber / Suhner			3 8 / 4.3 / 4.95	4.5 / 5.2 / 6.0
97 49 87	043331	K	f bre optic connectors, e.g. FSMA-; ST- and MIC-connectors			8.7	9.5
97 49 25 1	079828	Locator for	97 49 25				
97 49 26 1	079835	Locator for	97 49 26				
97 49 27 1	079842	Locator for	97 49 27				
97 49 94	030997	Locator for	[.] 97 49 04 / 97 52 04 / 97 52 34				
97 49 95	031000	Locator for	97 49 05 / 97 52 05 / 97 52 35				
97 49 93	047926	Locator for	[•] 97 49 24 (D-Sub-plugs)				
97 49 59 1	073741	Locator for	97 49 59 (solar cable connectors Helios H4)				
97 49 90	031017	Locator for	⁻ 97 49 60 (HTS + Harting)				
97 49 65 1	066729	Locator for	97 49 65 (solar cable connectors MC3)				
97 49 66 1	066736	Locator for	97 49 66 (solar cable connectors MC4)				
97 49 68 1	066743	Locator for	97 49 68 (solar cable connectors Solarlok)				
97 49 69 11	072133	Locator for	⁻ 97 49 69 1 and 97 49 69 2				
97 49 71 1	075073	Locator for	97 49 71 (solar cable connectors MC4)				

Tool Case for Photovoltaics

97 91

> with tools for photovoltaics

- > without crimping dies please order separately (see ref. 97 49...) for individual assortment
- > with service tools (hexagonal key) for the change of crimping dies

> shock-resistant plastic case

- > foam insert with recesses for tools, crimping dies and locators
- > dimensions, exterior (W x H x D): 345 x 80 x 280 mm



Article No.	EAN 4003773-				Quantity	۵ ^۲ ۵ g
97 91 01	070351		Tool Case for	Photovoltaics		1964
		MM	12 12 11	Precision Insulation Stripper, with adapted blades	1	
		🛧 1000 V 🖄 😭 🛠 🛒	95 16 165	Cable Shears	1	
		MM	97 43 200	Crimp System Pliers, for exchangeable crimping dies	1	

Tool Case for Photovoltaics, MC3 (Multi-Contact)

- > the complete tool set to install MC3 connectors
- > with service tools (hexagonal key) for the change of crimping dies shock-resistant plastic case
- > foam inserts 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): 360 x 105 x 300 mm



Article No.	EAN 4003773-				Quantity	۵'۵ g
97 91 02	074083		Tool Case for P	hotovoltaics, MC3 (Multi-Contact)		3280
		MM	12 12 11	Precision Insulation Stripper, with adapted blades	1	
		🚖 1000 V 🖄 🚰 🤂 🖺 🕤	95 16 165	Cable Shears	1	
		MM	97 43 200	Crimp System Pliers, for exchangeable crimping dies	1	
			97 49 65	Crimping dies, for solar cable connectors MC3 (Multi-Contact)	1	
			97 49 65 1	Locator for 97 49 65 (solar cable connectors MC3)	1	
			97 49 65 2	Mounting Tool for MC3 connectors	1	

97

97 91

Mounting Tool for MC3 connectors

- > for easy and quick assembly of MC3 solar cable connectors
- > three capsules (2.5 / 4; 6; 10 mm²) for pulling on the sleeves, integrated in the detachable handle
- > body: plastic, fibreglass-reinforced





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

	EAN	∢ →	Capacity	52
Article No.	. 4003773-	mm	mm ²	g
97 49 65	2 072010	325	2.5 - 10	460

115

Set of Mounting Tools for solar cable connectors MC4 (Multi-Contact)	97		
 > set of two mounting tools > to tighten cable glands of MC4 solar plugs > to open the locking of MC4 housings (even in case of mounted lock clip) 	97 49 66 2		
 > tool: plastic, fibreglass-reinforced 	Article No.	EAN 4003773-	∢— ► mm

97 49 66 2

074106

۲۵ g

18

Compression Tool for Coax connectors

Crimping Pliers

with side cutter

> with opening spring

for Scotchlok connectors

> cutting edges additionally induction hardened

> Vanadium electric steel; forged, oil-hardened

For crimping F, BNC and RCA connectors Robust design

- > suitable for RG 59 / 6 / 11 cable redatable head for different cable sizes
- > redatable insert for various types of connector
- > adjusting screw for various connector lengths
- > applicable among others for compression connectors Kathrein EMK 12; Cablecon F-56 CX3 5.1; Astro FKS 06



> for crimping plastic-insulated telecommunication or signal cables using the U-contact principle in single Scotchlok connectors

> no stripping necessary, U-shaped elements establish the connection



97 40 20 SB

97

40

Size X after compression	plugs								
17 - 24 mm		F (RG 59/6)							
30 - 37 mm	30 - 37 mm								
22 - 29 mm			RCA (59/6)						
35 - 42 mm		F (RG 11)							
EAN			5						

Article No.	EAN 4003773-	∢ —► mm	Applications	g
97 40 20 SB	077626	175	for F, BNC and RCA-plugs	430





Article No.	EAN 4003773-	∢→ mm			Head	Handles	Applications	Capacity Ø mm	۲ <mark>۵</mark>
97 50 01	028239	155	<u>e</u> >	MM	polished	plastic coated	Scotchlok single connector	0.4 - 1.1	135

97

50

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 (9.65 mm width) and type RJ 45 (11.68 mm width)
- > exact crimping process due to parallel crimping
- > repetitive, high crimping quality due to integral lock (self-releasing mechanism)
- > with length cutter and dismantling knife for ribbon cables 6 and 12 mm length
- > with additional stripping device for round cables
- > Chrome vanadium electric steel in special quality, oil-hardened



Article No.	EAN 4003773-	∢ →→ mm		Handles	Capacity	۲ <mark>۵</mark>
97 51 10	043171	190	\$	with multi-component grips	RJ 11/12 (6-poles) 9.65 mm RJ 45 (8-poles) 11.68 mm	340

97 59 06 029700 4 spare blades for poles 97 51 10

Crimping Pliers for Western plugs

97 51

- > professional tool for cutting and stripping unshielded ribbon telephone cables
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- > Chrome vanadium electric steel in special quality, oil-hardened



97 51 12







Article No.	EAN 4003773-	∢ —► mm			Handles	Capacity	۵ ^۲ ۵ g
97 51 12	043188	200	<u></u>		with multi-component grips	RJ 10 (4-poles) 7.65 mm RJ 11/12 (6-poles) 9.65 mm RJ 45 (8-poles) 11.68 mm	522
97 59 12	069997	Spare b	plades for	r 97 51 12			

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Crimping Pliers short design

97 52 14



available as accessory: locator for non-insulated open plug-type connectors

lock (self-releasing mechanism) > crimping pressure has been set precisely (calibrated) in the factory,

> repetitive, high crimping quality due to precision dies and integral

- re-adjustable > optimum transmission of force thanks to toggle lever for fatiguereduced operation
- > good handling due to 20° angled head, low weight and short design
- > Chrome vanadium electric steel in special quality, oil-hardened



Article No.	EAN 4003773-	∢→ mm			Handles	Applications	Capacity mm ²	AWG	۵ ^۲ ۵ g
97 52 14	026808	195	(Section of the section of the secti	~	with multi-component grips	non-insulated open plug type connectors (plug width 2.8 + 4.8 mm)	0.10 - 1.5	27 - 16	387
97 52 20	026853	195	<u>م</u>		with multi-component grips	COAX-, BNC- and TNC connectors RG 58 / 59 / 62 / 71 / 223			380
97 59 14	026976	Locator	r for 97 5	52 14	·	·			

Crimping Pliers also for two-hand operation

- > for solder-free electrical connections
- > the ingenious lever transmission reduces the handforce up to 30% compared with 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, re-adjustable
- > two-hand operation for easy crimping of large conductor diameters
- > easy handling as a result of well balanced centre 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



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



Third step: when greater hand force is required, such as e g. when crimping insulated connectors 6 mm², two-hand operation is possible by the longer handles



Article No.	EAN 4003773-	∢→ mm			Applications	Capacity mm²	AWG	۲ <mark>۵</mark>
97 52 04	025450	250	(Sector	~	non-insulated open plug type connectors (plug width 2.8 + 4.8 mm)	2.8 mm: 0.1 - 0.25 2.8 mm: 0.5 - 1 4.8 mm: 0.5 - 1 4.8 mm: 1.5 - 2.5	27 - 13	562
97 52 05	025467	250	1 and	~	non-insulated open plug type connectors (plug width 2.8 + 4.8 mm)	0.5 - 1 1.5 - 2.5 4 - 6	20 - 10	572
97 52 06	025474	250	<i></i>		insulated terminals, plug connectors and butt connectors	0.5 - 1 1.5 - 2.5 4 - 6	20 - 10	565
97 52 08	025481	250		M	insulated and non-insulated end sleeves (ferrules)	0.25 - 0.75 1 - 1.5 2.5 4 6	23 - 10	565
97 52 09	025498	250		W MM	insulated and non-insulated end sleeves (ferrules)	10 / 16 / 25	7/ 5/ 3	571
97 52 10	023678	250	(S)°		Coax-, BNC- and TNC-connectors			577
97 52 13	048084	250		~ ////	non-insulated crimp terminals, tube and compression cable lugs in accordance with DIN 46234 and DIN 46235 and non-insulated crimp, butt and press connectors in accordance with DIN 46341 and DIN 46267	0.5 - 1 1.5 - 2.5 4 - 6 10	20 - 7	558
97 52 19	052142	250		M WW	insulated and non-insulated end sleeves (ferrules)	35 / 50	2 / 0	567
97 52 23	052159	250	eran Of-		non-insulated terminals + cable connectors	16 / 25	5/3	565
97 49 94	030997	Locato	r for 97 49	9 04 / 97 52 04 /	97 52 34			
97 49 95	031000	Locator	r for 97 49	9 05 / 97 52 05 /	97 52 35			

R

KNIPEX PreciForce® 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, re-adjustable
- > optimum transmission of force thanks to toggle lever for fatigue-reduced operation
- > good handling thanks to favourable handle position, low weight, compact design and ergonomically shaped handles
- > Chrome vanadium electric steel in special quality, oil-hardened



97 52 37

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: PreciForce®.



<u>97 52 38</u>	
	F

Article No.	EAN 4003773-	∢→ mm			Applications	Capacity mm ²	AWG	۵'۵ g
97 52 30	051855	220	Frank		compression joints according to DIN 46267	1.5 - 4 (6 - 10)	15 - 11 10 / 7	477
97 52 33	051862	220		~ ////	non-insulated crimp terminals, tube and compression cable lugs in accordance with DIN 46234 and DIN 46235 and non-insulated crimp, butt and press connectors in accordance with DIN 46341 and DIN 46267	0.5 - 1 1.5 - 2.5 4 - 6 10	20 - 7	478
97 52 34	051879	220	(Sel	~	non-insulated open plug type connectors (plug width 2.8 + 4.8 mm)	2.8 mm: 0.1 - 0.25 2.8 mm: 0.5 - 1 4.8 mm: 0.5 - 1 4.8 mm: 1.5 - 2.5	27 - 13	483
97 52 35	051886	220	(Sala	~	non-insulated open plug type connectors (plug width 4.8 + 6.3 mm)	0.5 - 1 1.5 - 2.5 4 - 6	20 - 10	494
97 52 36	051893	220			insulated terminals + cable connectors	0.5 - 1 1.5 - 2.5 4 - 6	20 - 10	487
97 52 37	063193	220	<u></u>		heat shrinkeable sleeve connectors	0.5 - 1 1.5 - 2.5 4 - 6	20 - 10	478
97 52 38	051909	220		™	insulated and non-insulated end sleeves (ferrules)	0.25 - 0.75 1 - 1.5 2.5 4 6	23 - 10	493
97 52 50	051916	220	6 50°	●●	COAX-, BNC- and TNC-connectors for RG 58; 174; 188; 316			498
97 49 94	030997	Locat	or for 97	7 49 04 / 97	52 04 / 97 52 34			
97 49 95	031000	Locat	or for 97	7 49 05 / 97	52 05 / 97 52 35			

97 52

Four-Mandrel Crimping Pliers for turned contacts

97 52

- > 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 highly effective lever action for fatigue-reduced operation
- > high operation comfort thanks to handy shape
- > Chrome vanadium electric steel in special quality, oil-hardened

97 52 63

fine adjustment of pressure depending on the conductor's diameter by means of adjusting wheel; pliers in a plastic case with foam insert and standard locator for precise positioning of the contacts

97 52 63 DG

crimping capacity can be adjusted in increments of 0.01 mm; with digital display of the preset crimping capacities and possibility of re-calibration via RESET function with electronic wear monitoring; adjustment in mm, inches or comparable selection positions according to MIL; pliers in a plastic case with foam insert and standard locator for precise positioning of the contacts

97 52 64

pressure adjustment depending on the conductor's diameter by means of adjusting wheel in 4 different positions; locator for positioning 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; pliers in a plastic case with foam insert

97 52 65 A

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

97 52 65 DG

crimping capacity can be adjusted in increments of 0.01 mm; with digital display of the preset crimping capacities and possibility of re-calibration via RESET function with electronic wear monitoring; adjustment in mm, inches or comparable selection positions according to MIL; with table for calculating the settings; pliers in a plastic case with foam insert and standard locator for precise positioning of the contacts

97 52 65 DG A

crimping capacity can be adjusted in increments of 0.01 mm; with digital display of the preset crimping capacities and possibility of re-calibration via RESET function with electronic wear monitoring; adjustment in mm, inches or comparable selection positions according to MIL; with table for calculating the settings; pliers in a plastic case with foam insert; without locator

97 59 65 2

universal locator for holding turned contacts for crimping; precisely adjustable to the length (20 - 45 mm) and diameter (1 - 8 mm) of the crimping connector; 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 turned contacts in the four-mandrel crimping pliers' capacity range



Turned contacts are used for particularly demanding plug-type connections, e.g. in medical industry and aeronautics. 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.



Standard locator



)°	-	•								
Multifunctional digit nches or comparable										
Article No.	EAN 4003773-	∢ ► mm			Pliers	Handles	Applications	Capacity mm ²	AWG	۲۲ g
97 52 63	050148	180			chrome plated	with multi-component grips	turned contacts	0.08 - 2.5	28 - 13	388
97 52 63 DG	063209	195			chrome plated	with multi-component grips	turned contacts	0.08 - 2.5	28 - 13	388
97 52 64	044093	180			chrome plated	with multi-component grips	turned contacts	0.08 - 2.5	28 - 13	424
97 52 65	045236	230		PATENTED	chrome plated	with multi-component grips	turned contacts (Harting; Ilme; Phoenix; Amphenol; Walther; HTS; Contact; Weidmüller)	0.14 - 6	25 - 10	676
97 52 65 A	071594	250	150	PATENTED	chrome plated	with multi-component grips	turned contacts (Harting; Ilme; Phoenix; Amphenol; Walther; HTS; Contact; Weidmüller)	0.14 - 6	25 - 10	604
97 52 65 DG	063216	250		PATENTED	chrome plated	with multi-component grips	turned contacts (Harting; Ilme; Phoenix; Amphenol; Walther; HTS; Contact; Weidmüller)	0.14 - 6	25 - 10	633
97 52 65 DG A	071990	250	150	PATENTED	chrome plated	with multi-component grips	turned contacts (Harting; Ilme; Phoenix; Amphenol; Walther; HTS; Contact; Weidmüller)	0.14 - 6	25 - 10	633



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

97 53

Square compression now additionally also for end sleeves (ferrules) up to 16 mm² Narrow handle width



Crimping capacity can be switched over from 10 mm² to 16 mm²

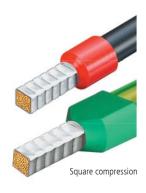
KNIPEX 97 53 04 GERMANY



Particularly suitable for all twin-ferrules up to 2 x 6 mm² or 2 x AWG 8 0.08 - 10 mm² + 16 mm²



Square compression for optimum contact areas in the clamp connection



Compact crimping pliers for end sleeves (ferrules) with two great advantages for the user:

> Automatic self-adjustment to the end sleeve (ferrule) used: this allows the specialist to work with less strain and enables secure, reliable and quick crimping

Proven functions

- > for crimping end sleeves (ferrules) according to DIN 46228 parts 1 + 4
- > self-adjusting adaptation to the desired end sleeve (ferrule) size: no wrong crimps caused by using the wrong die
- > repetitive, high crimping guality due to integral lock (self-releasing mechanism)
- > tools have been set precisely (calibrated) in the factory
- > optimum transmission of force thanks to toggle lever for fatigue-reduced operation
- > handy shape and low weight provide high operation comfort

Capacity up to 10 mm² Narrow handle width



Article No.	EAN 4003773-	∢ →► mm		Pliers	Handles	Applications	Capacity mm ²	AWG	۵۵ g
97 53 04	028017	180	600	burnished	with multi-component grips	End Sleeves (ferrules)	0.08 - 10 / 16	28 - 7 / 5	405
97 53 14	041474	180	6	burnished	with multi-component grips	End Sleeves (ferrules)	0.08 - 10	28 - 7	404

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

> for crimping end sleeves (ferrules) according to DIN 46228 parts 1 + 4

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- > self-adjusting adaptation to the desired end sleeve (ferrule) size: no wrong crimps caused by using the wrong die
- > front loading of the end sleeves (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, re-adjustable
- > optimum transmission of force thanks to toggle lever for fatigue-reduced operation
- > high operation comfort thanks to handy shape and low weight
- > Chrome vanadium electric steel in special quality, oil-hardened

97 53 08

compression from 0.08 - 10 $\rm mm^2$ in one profile; end sleeves (ferrules) up to 2.5 $\rm mm^2$ can also be loaded parallely from the side;

suitable in particular for all twin end sleeves (ferrules) up to 2 x 4 mm² or 2 x AWG 10 97 53 09

compression from 0.08 - 10 mm² and 16 mm² in one profile; with selector lever for setting the crimping area either to 0.08 - 10 mm² or 16 mm²; suitable in particular for all twin end sleeves (ferrules) up to 2 x 6 mm² or 2 x AWG 8



Square crimping



Front loading of end sleeves (ferrules) e.g. in switchboards



97 53 08: lateral loading of end sleeves (ferrules) up to 2.5 mm² parallely from the side e.g. in confined areas



The crimping pliers for end sleeves (ferrules) with three great advantages for the user:

- > Automatic self-adjustment to the end sleeve (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: square crimping 0.08 to 10 + 16 mm²
- > Front loading: very helpful under difficult working conditions in confined areas

Article No.	EAN 4003773-	∢ → mm			Pliers	Handles	Applications	Capacity mm ²	AWG	۵۵ g
97 53 08	040187	190	6 60 🔊		burnished	with multi-component grips	End Sleeves (ferrules)	0.08 - 10	28 - 7	477
97 53 09	044550	190	0	M	burnished	with multi-component grips	End Sleeves (ferrules)	0.08 - 10 / 16	28 - 7 / 5	486

Square compression

CRIMPING PLIERS

Crimping Pliers for micro plugs parallel crimping

- > parallel crimping performance to satisfy the particularly high standards of small connectors
- > repetitive, high crimping quality due to precision dies and integral lock (self-releasing mechanism)
- > fixed locator for D-Sub micro plugs for an exact positioning of connector and cable
- > crimping pressure has been set precisely (calibrated) in the factory, re-adjustable
- > optimum transmission of force thanks to toggle lever for fatigue-reduced operation
- > crimping pliers for other mini plugs such as HD 22, Modu IV, Micro Timer, MQS ... on request
- > Chrome vanadium electric steel in special quality, oil-hardened





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Article No.	EAN 4003773-	∢-→ mm		Pliers	Handles	Applications	Capacity mm ²	AWG	۵'۵ g
97 54 24	060215	190	S.M.	burnished	with multi-component grips	D-Sub-; HD 20-; HDE plug	0.03 - 0.56	32 - 20	305
97 54 25	079859	190		burnished	with multi-component grips	Micro-Fit™		20 / 22-24 / 26-30	
97 54 26	079866	190		burnished	with multi-component grips	Mini-Fit®		16 / 18 / 20-24	
97 54 27	079873	190	E.M.	burnished	with multi-component grips	MQS plug	0.25 / 0.35 / 0.5		

Crimping Pliers for end sleeves (ferrules)

- > for crimping end sleeves (ferrules) according to DIN 46228 parts 1 + 4 in the range from 0.25 up to 2.5 mm²
- > crimping in marked trapezoidal dies for reliable connections between the sleeve and the conductor
- > Vanadium electric steel; forged, oil-hardened



Article No.	EAN 4003773-	∢ → mm			Head	Handles	Capacity mm ²	AWG	۵'۵ g
97 61 145 A	035558	145	0	\mathbf{r}	polished	plastic coated	0.25 - 2.5	23 - 13	140
97 61 145 F	043980	145	0		polished	plastic coated	0.25 - 2.5	23 - 13	140
97 62 145 A	060154	145	6	\mathbf{V}	polished	with multi-component grips	0.25 - 2.5	23 - 13	170
97 68 145 A	071754	145	6	₩ ≙ 1000 V @@	polished	insulated with multi-component grips, VDE-tested	0.25 - 2.5	23 - 13	175

Crimping Pliers for end sleeves (ferrules)

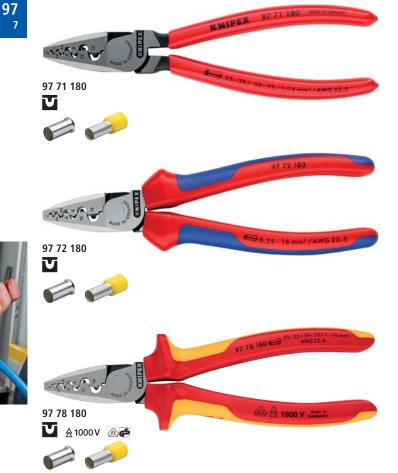
Also as VDE version

Easy crimping due to optimised transmission ratio Light and slim design

- > for crimping end sleeves (ferrules) according to DIN 46228 parts 1 + 4 from 0.25 to 16 mm²
- > crimping in marked half-round dies for reliable connections between the sleeve and the conductor

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- > 9 particularly deep dies with conical side faces
- > High-grade special tool steel, forged, oil-hardened





Article No.	EAN 4003773-	∢ ► mm			Head	Handles	Applications	Capacity mm ²	AWG	۲ <mark>۵</mark>
97 71 180	040668	180	0	V	polished	plastic coated	End Sleeves (ferrules)	0.25 - 16	23 - 5	205
97 72 180	060185	180	0	V	polished	with multi-component grips	End Sleeves (ferrules)	0.25 - 16	23 - 5	242
97 78 180	072003	180	6	Ŭ ≙ 1000 V ≙€	polished	insulated with multi-component grips, VDE-tested	End Sleeves (ferrules)	0.25 - 16	23 - 5	254

Crimping Pliers for end sleeves (ferrules) with front loading

- 97
- > for crimping end sleeves (ferrules) according to DIN 46228 parts 1 + 4 in the range 0.5 to 6 mm^2
- > ideal for work in confined areas, e.g. in narrow and deep switch boxes
- > Special tool steel, forged, oil-hardened



97 81 180

Article No.	EAN 4003773-	∢ ► mm			Head	Handles	Applications	Capacity mm ²	AWG	۵'۵ g
97 81 180	019794	180	600	\checkmark	polished	plastic coated	End Sleeves (ferrules)	0.5 - 6	20 - 10	227

CRIMP ASSORTMENTS

Crimp Assortments for end sleeves (ferrules)



> in a TANOS MINI-systainer® (solid plastic box)

- > T-Loc fastener for one-handed operation: open or close the systainer[®] with one turn and connect to a second systainer[®]
- > opening when connected: fast and simple access to content without disconnection
- > two stackable plastic inserts with 6 trays each for connectors
- > with an assortment of end sleeves (ferrules) with / without collar

97 90 05

with Crimping Pliers for end sleeves 97 71 180

97 90 06

with Crimping Pliers for end sleeves 97 71 180

97 90 09

with Self-Adjusting Crimping Pliers for End Sleeves (ferrules) 97 53 04

97 90 10

with Self-Adjusting Insulation Stripper 12 40 200; with Se f-Adjusting Crimping Pliers for End Sleeves (ferrules) 97 53 04

97 90 12

with Self-Adjusting Insulation Stripper 12 40 200; with Se f-Adjusting Crimping Pliers for End Sleeves (ferrules) 97 53 08

97 90 23

with Crimping Pliers "PreciForce" for End Sleeves (ferrules) 97 52 38

97 90 24

with Self-Adapting Universal Insulation Stripper "MultiStrip 10" 12 42 195; with Self-Adjusting Crimping Pliers for End Sleeves (ferrules) 97 53 08





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97 90 10





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Several boxes can be connected with each other



Article No.	EAN 4003773-	Pliers	200 x mm ²	150 x mm ²	100 x mm ²	75 x mm ²	50 x mm ²	40 x mm ²	۵۵ g
97 90 05	025535	97 71 180	0.5 / 0.75 / 1 / 1.5 / 2.5	4 / 6			10 / 16		930
97 90 06	025542	97 71 180	0.5 / 0.75 / 1 / 1.5	2,5		4 / 6	10	16	1000
97 90 09	028574	97 53 04	0.5 / 0.75 / 1 / 1.5 / 2.5		4 / 6		10		1420
97 90 10	046202	97 53 04 / 12 40 200	0.5 / 0.75 / 1 / 1.5 / 2.5		4 / 6		10		1353
97 90 12	048916	97 53 08 / 12 40 200	0.5 / 0.75 / 1 / 1.5 / 2.5		4 / 6		10		1427
97 90 23	062158	97 52 38	0.5 / 0.75 / 1 / 1.5 / 2.5		4 / 6				1226
97 90 24	062394	97 53 08 / 12 42 195	0.5 / 0.75 / 1 / 1.5 / 2.5		4 / 6		10		1348
97 90 00 LE	054009	TANOS MINI-systainer® empty							900

Crimp Assortments for cable connectors



97 90 00

97

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with Crimp Grip Pliers 97 00 215 A

97 90 01 with Crimping Pliers 97 32 225

97 90 21

with Crimping Pliers PreciForce® 97 52 36 (for insulated terminals and plug connectors) 97 90 22

with Self-Adapting Universal Insulation Stripper "MultiStrip 10" 12 42 195; with Crimping Pliers PreciForce® 97 52 36 (for insulated terminals and plug connectors)

				Cable Connectors			
Article No.	EAN 4003773-		Pliers		Quantity	Cable mm²	۲ <mark>۵</mark>
97 90 00	025375				25	4 - 6	
				Blade Terminal Sockets, 6.3 x 0.8 mm	25	1.5 - 2.5	
		-	3		25	0.5 - 1	
			97 00 215 A	Round Sockets, Ø 4 mm	25	0.5 - 1	
		1		Cable Connectors, eye type, Ø 4 mm	25	0.5 - 1	
				Cable Connectors, eye type, b 4 mm	25	1.5 - 2.5	1391
				Cable Connectors, eye type, Ø 5 mm	25	1.5 - 2.5	1551
		0		cable connectors, eye type, o 5 mm	25	4 - 6	
				Cable Connectors, eye type, Ø 6 mm	25	4 - 6	
				Butt Connectors, insulated, red	25	0.5 - 1	
				Butt Connectors, insulated, blue	25	1.5 - 2.5	
				Round Pin Plugs, Ø 4 mm	25	0.5 - 1	
97 90 21	062134			Blade Terminal Sockets, 6.3 x 0.8 mm	25	0.5 - 1	
				blade ferminal sockets, 6.5 x 0.6 mm	25	1.5 - 2.5	
			e u sh	Cable Connectors, eye type, Ø 4 mm	25	0.5 - 1	
		(and		Cable Connectors, eye type, Ø 5 mm	25	0.5 - 1	
		<u>م</u>	97 52 36	Cable Connectors, eye type, Ø 6 mm	25	4 - 6	
				Cable Connectors, eye type, Ø 8 mm	25	4 - 6	1.440
				Cable Connectors, eye type, Ø 4 mm	25	1.5 - 2.5	1416
				Cable Connectors, eye type, Ø 5 mm	25	1.5 - 2.5	1
				Cable Connectors, eye type, Ø 6 mm	25	1.5 - 2.5	
				Butt Connectors, insulated, red	25	0.5 - 1	
				Butt Connectors, insulated, blue	25	4 - 6	
				Butt Connectors, insulated, yellow	25	1.5 - 2.5	
97 90 22	062141				25	0.5 - 1	
				Blade Terminal Sockets, 6.3 x 0.8 mm	25	1.5 - 2.5	
		_		Cable Connectors, eye type, Ø 4 mm	25	0.5 - 1	
		E.		Cable Connectors, eye type, Ø 5 mm	25	0.5 - 1	
		5		Cable Connectors, eye type, Ø 4 mm	25	1.5 - 2.5	
			97 52 36 12 42 19	5 Cable Connectors, eye type, Ø 5 mm	25	1.5 - 2.5	450
					25	1.5 - 2.5	1527
				Cable Connectors, eye type, Ø 6 mm	25	4 - 6	
				Cable Connectors, eye type, Ø 8 mm	25	4 - 6	
				Butt Connectors, insulated, red	25	0.5 - 1	
				Butt Connectors, insulated, blue	25	1.5 - 2.5	
				Butt Connectors, insulated, yellow	25	4 - 6	1
97 90 25	076971			Non-insulated Blade Terminal Sockets	25	0.5 - 1.5	
		∕∼⊌		6.3 x 0.8 mm	25	1 - 2.5	1
					25	0.5 - 1	1
		N. C.	97 22 240	Blade Terminal Sockets 6.3 x 0.8 mm	25	1.5 - 2.5	1
		(See	57 22 240	0.5 X 0.8 11111	25	4 - 6	1
		en e		Blade Terminal Plugs	25	0.5 - 1	1100
				6.3 x 0.8 mm	25	1.5 - 2.5	1150
		-			25	0.5 - 1	1
				Cable Connectors, eye type Ø 4 mm	25	1.5 - 2.5	1
				Butt Connectors, insulated, red	25	0.5 - 1	1
				Butt Connectors, insulated, blue	25	1.5 - 2.5	1
		1		Butt Connectors, insulated, yellow		4 - 6	1

Crimp Assortments for cable connectors



97 90 25 with Crimping Pliers 97 22 240 **97 90 26** with Crimping Pliers 97 32 240

				Cable Connectors			
Article No.	EAN 4003773-		Pliers		Quantity	Cable mm²	۵'۵ g
97 90 26	079521			Blade Terminal Sockets, 6.3 x 0.8 mm	25	1.5 - 2.5	
				Blade Terminal Sockets, 6.3 x 0.8 mm	25	4 - 6	
		-		Blade Terminal Sockets, 6.3 x 0.8 mm	25	0.5 - 1	
			97 32 240	Cable Connectors, eye type, Ø 4 mm	25	0.5 - 1	1420
		1		Cable Connectors, eye type, Ø 4 mm	25	1.5 - 2.5	
				Cable Connectors, eye type, Ø 5 mm	25	1.5 - 2.5	
		0		Cable Connectors, eye type, Ø 5 mm	25	4 - 6	
		3		Cable Connectors, eye type, Ø 6 mm	25	4 - 6	
				Butt Connectors, insulated, Red	25	0.5 - 1	
				Butt Connectors, insulated, Blue	25	1.5 - 2.5	
				Round Sockets, Ø 4 mm	25	0.5 - 1	
				Round Pin Plugs, Ø 4 mm	25	0.5 - 1	
97 90 00 LE	054009	TANOS M	INI-systainer [®] empty				900

97



Article No.	EAN 4003773-		Width x Thickness mm²	Cable mm²	AWG	Colour	
97 99 001	075882		2.8 x 0.5	0.5 - 1	20 - 17	red	100
97 99 010	075899		4.8 x 0.8	0.5 - 1	20 - 17	red	100
97 99 011	075905	Blade Terminal	4.8 x 0.8	1.5 - 2.5	15 - 13	blue	100
97 99 020	075912	Sockets,	6.3 x 0.8	0.5 - 1	20 - 17	red	100
97 99 021	075929	insulated	6.3 x 0.8	1.5 - 2.5	15 - 13	blue	100
97 99 022	075936	_	6.3 x 0 8	4 - 6	11 - 10	yellow	100
97 99 030	075943		7.7 x 0 8	1.5 - 2.5	15 - 13	blue	100

Article No.	EAN 4003773-		Width x Thickness mm²	Cable mm ²	AWG	F
97 99 050	075950		2.8 x 0.8	0.5 - 1	20-17	100
97 99 060	075967	Plug Connectors,	4.8 x 0.8	1.5 - 2.5	16-14	100
97 99 070	075974	non-insulated	6.3 x 0.8	0.5 - 1.5	20-15	100
97 99 071	075981	_	6.3 x 0.8	1 - 2.5	17-14	100

Article No.	EAN 4003773-		Width x Thickness mm ²	Cable mm²	AWG	Colour	£
97 99 090	075998	Flat Pin Accessory	6.3 x 0.8	0.5 - 1	20 - 17	red	100
97 99 091	076001	Distr butors,	6.3 x 0.8	1.5 - 2.5	15 - 13	blue	100
97 99 092	076018	insulated	6.3 x 0.8	4 - 6	11 - 10	yellow	100

Article No.	EAN 4003773-		Width x Thickness mm²	Cable mm²	AWG	Colour	ß
97 99 110	076025	Blade Terminal	6.3 x 0.8	0.5 - 1	20 - 17	red	100
97 99 111	076032	Plugs,	6.3 x 0.8	1.5 - 2.5	15 - 13	blue	100
97 99 112	076049	insulated	6.3 x 0.8	4 - 6	11 - 10	yellow	100

Article No.	EAN 4003773-		Plug Ø mm	Cable mm²	AWG	Colour	F
97 99 130	076056	Round Sockets,	4	0.5 - 1	20 - 17	red	100
97 99 131	076063	insulated	5	1.5 - 2.5	15 - 13	blue	100

Article No.	EAN 4003773-		Plug Ø mm	Cable mm ²	AWG	Colour	Æ
97 99 150	076070	Round Pin Plugs,	4	0.5 - 1	20 - 17	red	100
97 99 151	076087	insulated	5	1.5 - 2.5	15 - 13	blue	100















Cable Connectors DIN 46247

Article No.	EAN 4003773-		Screws Ø mm	Cable mm²	AWG	Colour	F
97 99 170	076094		3	0.5 - 1	20 - 17	red	200
97 99 171	076100	_	4	0.5 - 1	20 - 17	red	200
97 99 172	076117		5	0.5 - 1	20 - 17	red	200
97 99 173	076124	_	4	1.5 - 2.5	15 - 13	blue	100
97 99 174	076131	Cable Connectors,	5	1.5 - 2.5	15 - 13	blue	100
97 99 175	076148	eye type,	6	1.5 - 2.5	15 - 13	blue	100
97 99 176	076155	insulated	8	1.5 - 2.5	15 - 13	blue	100
97 99 177	076162	_	5	4 - 6	11 - 10	yellow	100
97 99 178	076179	-	6	4 - 6	11 - 10	yellow	100
97 99 179	076186		8	4 - 6	11 - 10	yellow	100
97 99 180	076193		10	4 - 6	11 - 10	yellow	100





Article No.	EAN 4003773-		Screws Ø mm	Cable mm²	AWG	ł
97 99 210	076209		3	0.5 - 1	20 - 17	200
97 99 211	076216	_	4	0.5 - 1	20 - 17	200
97 99 212	076223	_	5	0.5 - 1	20 - 17	200
97 99 213	076230		4	1.5 - 2.5	15 - 13	100
97 99 214	076247	Non-insulated	5	1.5 - 2.5	15 - 13	100
97 99 215	076254	Solderless	6	1.5 - 2.5	15 - 13	100
97 99 216	076261	Terminals	8	1.5 - 2.5	15 - 13	100
97 99 217	076278		5	4 - 6	11 - 10	100
97 99 218	076285	-	6	4 - 6	11 - 10	100
97 99 219	076292		8	4 - 6	11 - 10	100
97 99 220	076308		10	4 - 6	11 - 10	100

Article No.	EAN 4003773-		Cable mm ²	AWG	Colour	F
97 99 250	076315		0.5 - 1	20 - 17	red	100
97 99 251	076322	Heat Shrinkable Butt Connectors	1.5 - 2.5	15 - 13	blue	100
97 99 252	076339		4 - 6	11 - 10	yellow	100

Article No.	EAN 4003773-		Cable mm²	AWG	Colour	<pre>File</pre>
97 99 270	076346		0.5 - 1	20 - 17	red	100
97 99 271	076353	Butt Connectors, insulated	1.5 - 2.5	15 - 13	blue	100
97 99 272	076360		4 - 6	11 - 10	yellow	100

Article No.	EAN 4003773-		Cable mm²	AWG	mm	
97 99 290	076377		0.5 - 1	20 - 17	15	200
97 99 291	076384	Butt Connectors,	1.5 - 2.5	15 - 13	15	200
97 99 292	076391	non-insulated	4 - 6	11 - 10	15	100
97 99 293	076407		10	7	15	100







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Article No.	EAN 4003773-		⊲→ mm	Cable mm²	AWG	Colour	F
97 99 330	076414		14	0.5	20	white	200
97 99 331	076421		14	0.75	18	grey	200
97 99 332	076438		14	1	17	red	200
97 99 333	076445	_	14	1.5	15	black	200
97 99 334	076452	End Sleeves	14	2.5	13	blue	200
97 99 335	076469	(ferrules) with collar	17	4	11	grey	200
97 99 336	076476	_	20	6	10	yellow	100
97 99 337	076483		22	10	7	red	100
97 99 338	076490	_	24	16	5	blue	100
97 99 339	076506	_	30	25	3	yellow	50
97 99 350	076513		16	0.5	20	white	200
97 99 351	076520		16	0.75	18	grey	200
97 99 352	076537		16	1	17	red	200
97 99 353	076544		16	1.5	15	black	200
97 99 354	076551	End Sleeves	16	2.5	13	blue	200
97 99 355	076568	(ferrules) with collar	20	4	11	grey	200
97 99 356	076575		26	6	10	yellow	100
97 99 357	076582		28	10	7	red	100
97 99 358	076599		28	16	5	blue	100
97 99 359	076605		32	25	3	yellow	50

97 99 336



97 99 353

Article No.	EAN 4003773-		∢ → mm	Cable mm²	AWG	Colour	ł
97 99 370	076612		15	2 x 0.5	2 x 20	white	200
97 99 371	076629	-	16	2 x 0.75	2 x 18	grey	200
97 99 372	076636	_	15	2 x 1	2 x 17	red	200
97 99 373	076643	Twin wire-end	18	2 x 1.5	2 x 15	black	200
97 99 374	076650	ferrules,	18	2 x 2.5	2 x 13	blue	100
97 99 375	076667	with plastic collar	23	2 x 4	2 x 11	grey	100
97 99 376	076674	_	26	2 x 6	2 x 10	yellow	50
97 99 377	076681		24	2 x 10	2 x 7	red	50
97 99 378	076698		29	2 x 16	2 x 5	blue	25

	EAN			Cable		
Article No.	4003773-		∢ ► mm	mm ²	AWG	
97 99 390	076704		6	0.50	20	200
97 99 391	076711		6	0.75	18	200
97 99 392	076728		6	1	17	200
97 99 393	076735	_	7	1.5	15	200
97 99 394	076742	Non-insulated End Sleeves	7	2.5	13	200
97 99 395	076759	(ferrules)	9	4	11	200
97 99 396	076766		12	6	10	100
97 99 397	076773	_	12	10	7	100
97 99 398	076780		12	16	5	100
97 99 399	076797		12	25	3	50







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Insulated tools are a matter of trust

Professionals trust their tools. This trust is vital when working on electrical installations. In this case, the electrician holding the pliers is also holding his life in his hands. Our insulated tools therefore not only meet statutory requirements, but also offer the greatest possible safety, reliability and performance.









Regulated by standards

Only trained professionals are allowed to work on live installations. Such work is subject to strict occupational health and safety standards such as the German DIN VDE 0105 and the international EN 50110 and IEC 60364. In each case they must deploy special tools that have been specifically manufactured and tested for this work. Which requirements have to be met by tools used in live work is determined by DIN EN / IEC 60900. KNIPEX tools which bear the special mark **A1000V** are approved for work up to 1000 V AC.

Guaranteed individually checked

Every insulated tool undergoes, one by one, a dielectric strength at 10,000 V AC before we sell it. This means that work in the area up to 1,000 V AC has a safety buffer of ten times the permitted maximum limit. Other procedures check the reliability of the insulation towards heat, cold, tensile and impact force. In addition to the KNIPEX quality assurance team, external institutes and test centres such as the VDE guarantee that all VDE criteria have been satisfied. We go through this effort to safeguard the user. He trusts his well-being with our pliers, day in and day out. In return we want to give him the best possible safety at all times. We stand by this responsibility with our name on the insulation of KNIPEX tools.

Strong beneath the insulation

The insulation provides safety when handling electrical installations, but it does not cut, grip or crimp. The mechanical properties of the basic tool, such as cutting performance, precision and stability, therefore style part of the overall quality of insulated tools.

With our insulated pliers, users can depend on the quality and durability of products from KNIPEX production.For assembly tools insulated by us, we use basic tools from tried and tested suppliers whose quality we subject to regular, stringent checks. The expert can rely on this double dependability of tool and insulation.

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

- > Insulated tools must be transported 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 live equipment.
- > Make sure the workplace is clean and orderly, particularly when you are working on live installations.
- >Wear protective clothing and use 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.

Combination Pliers

Chrome plated Vanadium DIN ISO 5746 IEC 60900 DIN EN 60900

01

- > for heaviest duty
- > with gripping zones for flat and round material, suitable for versatile use
- > with cutting edges for soft, hard and piano wire long cutting edges for thicker cables
- > cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC
- > particularly wear resistant gripping jaws; hardness of the gripping jaws approx. 53 HRC
- > Chrome vanadium heavy-duty steel, forged, multi stage oil-hardened



						Cutting capacities				
	EAN	4- >						•	•	52
Article No.	4003773-	mm		Pliers	Handles	Ømm	Ømm	Ømm	mm ²	g
01 06 160	040729	160	A 1000 V 🖄 🖨 💷 💌	chromo plated	insulated with multi-component	2.0	1.5	10.0	16	201
01 06 190	040415	190		chrome plated	grips, VDE-tested	2.5	2.0	13.0	25	320

High Leverage Combination Pliers DIN ISO 5746 IEC 60900 DIN EN 60900

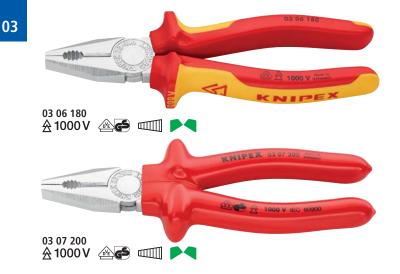
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- > 35% less effort required than with conventional combination pliers easier work due to optimised leverage
- > with cutting edges (hardness approx. 63 HRC) for soft and hard wire and piano wire
- > long cutting edges for thicker cables
- > with gripping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



						Cutting capacities				
	EAN	∢ —▶						•		52
Article No.	4003773-	mm		Pliers	Handles	Ømm	Ømm	Ømm	mm ²	g
02 06 180	010012	180		chrome plated		2.5	2.0	11.5	16	247
02 06 200	010029	200	<u>A</u> 1000 V 🆄 🚰 ााा 🕨 🖣		insulated with multi-component grips, VDE-tested	2.8	2.2	13.0	25	343
02 06 225	010036	225				3.0	2.5	14.0	25	401
02 07 200	022299	200	A 1000 V 🖄 🖨 💷 🗖 🖊	chrome plated	with dipped insulation, VDE-tested	2.8	2.2	13.0	25	380
02 07 225	022305	225		chrome plated	with dipped insulation, VDE-tested	3.0	2.5	14.0	25	486

Combination Pliers DIN ISO 5746 IEC 60900 DIN EN 60900

- > 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 edges additionally induction hardened, cutting edge hardness approx. 60 HRC
- > Special tool steel, forged, multi stage oil-hardened



Article No.	EAN 4003773-	∢→ mm		Pliers	Handles	Ø mm	Ø mm	Ø mm	mm ²	۵'ک g
03 06 160	021902	160				3.1	2.0	10.0	16	228
03 06 180	021926	180	1000 V @₽ 💷 🕨	chrome plated	insulated with multi-component grips, VDE-tested	3.4	2.2	12.0	16	264
03 06 200	033776	200	-			3.8	2.5	13.0	16	326
03 07 160	015307	160				3.1	2.0	10.0	16	254
03 07 180	015314	180	- ♠ 1000 V @ ♣ আ I ► ◀	chrome plated	with disped inculation VDE tested	3.4	2.2	12.0	16	285
03 07 200	015321	200		chrome plated	with dipped insulation, VDE-tested	3.8	2.5	13.0	16	339
03 07 250	015345	250				3.8	2.5	15.0	25	597

Needle-Nose Combination Pliers DIN ISO 5746

Small High Leverage Combination Pliers with pointed jaw. For all common installation and repair work.

Handy use when working in confined areas thanks to slim head design and pointed jaws (anti-twist)

Gripping surfaces with special convex contour on one side for secure gripping of flat parts

Milled groove in the gripping area permits small parts such as nails, pins and bolts to be held and pulled

- > the reliable and diverse combination pliers when out and about
- > easy cutting thanks to the high leverage joint
- > with cutting edges for soft, medium-hard and hard wire
- > long service life and stable tips
- > High-grade special tool steel, forged, multi stage oil-hardened





						Cutting capacities				
	EAN	∢ —►				\bullet			•	5
Article No.	4003773-	mm		Pliers	Handles	Ømm	Ømm	Ømm	Ø mm ²	g
08 26 145	079361	145	₩₩ 1000 V @	chrome plated	insulated with multi-component grips, VDE-tested	3.0	2.0	8.0	16	154

Insulation Strippers IEC 60900 DIN EN 60900

- > for single, multiple and fine stranded conductors with plastic or rubber insulation max. 5.0 mm dia. or resp. 10 mm² cable cross section
- > easy adjustment to the required diameter of solid or stranded wire with knurled screw and lock nut
- > Special tool steel, forged, oil-hardened





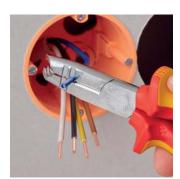


Article No.	EAN 4003773-	∢ ► mm		Pliers	Handles	Stripping capacities Ø mm	Stripping capacities mm ²	AWG	۲ _۵ ع
11 06 160	021933	160	<u> </u>	chrome plated	insulated with multi-component grips, VDE-tested	5.0	10	7	166
11 07 160	015499	160	£ 1000 V @ € MM	chrome plated	with dipped insulation, VDE-tested	5.0	10	7	180
11 17 160	015505	160	£ 1000 V 🖄 🚰	chrome plated	with dipped insulation, VDE-tested	5.0	10	7	181

13

11

Dismantling Pliers DIN ISO 5743





Multifunctional – cutting, dismantling and stripping with one pair of pliers.

For time-saving dismantling and stripping of all common round and damp-proof installation cables (e.g. NYM cable) Simplified access especially to deep mounted flush sockets thanks to slim head design and optimally angled cable sheath cutter

Strip cables easily and without damage thanks to circular cutting edge with depth limit

- > suitable for universal use: precision wire stripping holes for conductors from 1.5 and 2.5 mm²
- > with diagonal cutters for cutting and trimming conductors, wires, small screws and nails
- > all cutters additionally induction hardened to approx. 61 HRC for high wear resistance
- > 30% lighter than comparable pliers
- > Vanadium steel, forged, multi stage oil-hardened





Diagonal Insulation Stripper IEC 60900 DIN EN 60900

14

With long cutting edges High cutting capacity due to high leverage joint

- > precision stripping holes for single conductors of 1.5 and 2.5 mm²
- > convenient cutting of NYM cables up to 5 x 2.5 mm²
- > long tips for ultra fine cutting work also in confined areas
- > induction hardened precision blades, cutting edge hardness approx. 60 HRC
- > Vanadium steel, forged, multi stage oil-hardened



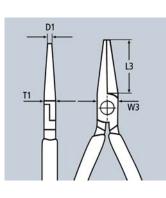


							Cutting capacities			
Article No.	EAN 4003773-	∢→ mm		Pliers	Handles	Stripping capacities mm ²	AWG	Ø mm	Ø mm	۲۵ g
14 26 160	040279	160	<u> </u>	chrome plated	insulated with multi-component grips, VDE-tested	1.5 + 2.5	15 + 13	2.5	1.5	216

Round Nose Pliers

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







						Dimensions				
	EAN	∢ —▶				L3	W3	D1	T1	52
Article No.	4003773-	mm		Pliers	Handles	mm	mm	mm	mm	g
22 06 160	033790	160	≙1000V @€ 8⊂	chrome plated	insulated with multi-component grips, VDE-tested	30.0	18.0	3.0	9.5	175

Pliers for Electrical Installation IEC 60900 DIN EN 60900

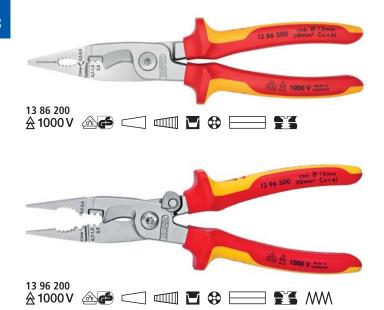
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The all-rounder for professionals

Multifunctional pliers for the electrical installation; to grip flat and round material, for bending, deburring, cutting cable, stripping and crimping end sleeves (ferrules)

6 functions in one pair of pliers

- > smooth surfaces near the tips grip single cores 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 conductors of ~0.75 $1.5~mm^2$ and $2.5~mm^2$ crimp die for wire-end ferrules 0.5 $2.5~mm^2$
- > cable shears with (induction-hardened) precision cutting edges for copper and aluminium cables up to 5 x 2.5 mm² / dia. 15 mm
- > slim dimensions for easy access
- > bolted joint: precise, zero backlash operation of pliers
- > High-grade special tool steel, forged, multi stage oil-hardened

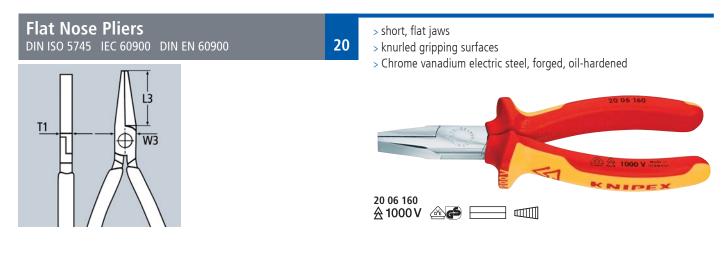




13 96 200

in case of models with opening spring integrated in the joint, the activated locking lever keeps the cutting edges closed while other functions remain active; the intelligent latching mechanism enables you to ,grip' without opening the pliers. The cutting edge remains closed and protected.

Article No.	EAN 4003773-	∢→ mm	Pliers	Handles	Cutting c Ø mm	apacities	Stripping capacity for cross-sections mm ²	Capacity mm ²	۲۵ g
13 86 200	075097	200	chrome plated	insulated with multi-component grips, VDE-tested	15	50	0.75 - 1.5 / 2.5	0.5 - 2.5	280
13 96 200	075110	200	chrome plated	insulated with multi-component grips, VDE-tested	15	50	0.75 - 1.5 / 2.5	0.5 - 2.5	280



						Dimensions			
	EAN	∢ —▶				L3	W3	T1	5
Article No.	4003773-	mm		Pliers	Handles	mm	mm	mm	g
20 06 160	033783	160	A 1000 V A P 1000 V	chrome plated	insulated with multi-component grips, VDE-tested	30.0	17.0	9.5	176

Snipe Nose Side Cutting Pliers (Radio Pliers)

DIN ISO 5745 IEC 60900 DIN EN 60900

- > suitable for finer gripping and cutting work
- > pointd, half-round jaws
- > knurled gripping surfaces
- > with cutting edges for medium hard and hard wire
- > cutting edges additionally induction hardened, cutting edge hardness approx. 61 HRC
- > Vanadium steel, forged, multi stage oil-hardened

A 1000 V 🖄 🗲

200

26 27 200 016090

chrome

plated

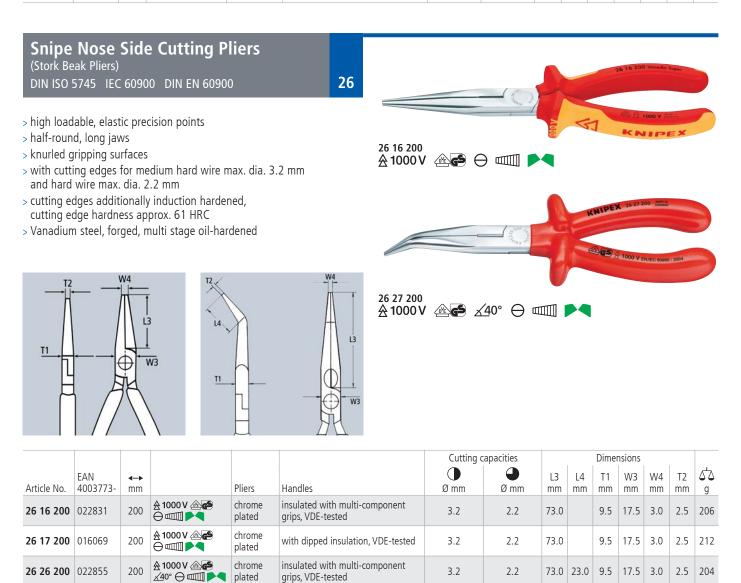


2.2

73.0 23.0 9.5 17.5 3.0

3.2

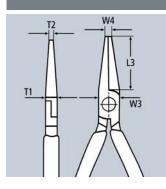
						Cutting capacities Dimensions								
	EAN	>						L3	L4	W3	T1	W4	T2	52
Article No.	4003773-	mm		Pliers	Handles	Ømm	Ømm	mm	mm	mm	mm	mm	mm	g
25 06 160	033806	160	≜ 1000 V @@	chrome plated	insulated with multi-component grips, VDE-tested	2.5	1.6	50.0		16.5	9.0	3.0	2.5	146
25 26 160	052111	160	≙ 1000 V @ੴ ∡40° ⊖ תעוו ווי	chrome plated	insulated with multi-component grips, VDE-tested	2.5	1.6	50.0	23.0	16.5	9.0	3.0	2.5	144



with dipped insulation, VDE-tested

2.5 220

Long Nose Pliers DIN ISO 5745 IEC 60900 DIN EN 60900



30

- > heavy duty and wear resisting
- > different jaw styles
- > Chrome vanadium electric steel, forged, oil-hardened

Style 1

long, trapezoidal jaws; knurled gripping surfaces

Style 3

long, round jaws; smooth gripping surfaces



							Dimensions					
	EAN	∢ —▶					L3	W3	T1	W4	T2	52
Article No.	4003773-	mm		Style	Pliers	Handles	mm	mm	mm	mm	mm	g
30 16 160	001904	160	≙1000 V @₽	1	chrome plated	insulated with multi-component grips, VDE-tested	46.5	16.5	9.5	3.0	5.0	150
30 36 160	002123	160	≙1000 V @€ 8⊂	3	chrome plated	insulated with multi-component grips, VDE-tested	41.0	16.5	9.5	5.0	2.5	141

Diagonal Cutters DIN ISO 5749 IEC 60900 DIN EN 60900

70

> the indispensable diagonal cutter for all-round use

- > high quality material and precise workmanship for long service life
- > precision cutting edges for soft and hard wire
- > clean cutting of thin copper wires, also at the cutting-edge tips
- > cutting edges additionally induction hardened, cutting edge hardness approx. 62 HRC
- > narrow head style for use in confined areas
- > Vanadium steel, forged, multi stage oil-hardened







						Cutting capacities			
Article No.	EAN 4003773-	∢→ mm		Pliers	Handles	Ø mm	Ø mm	Ø mm	۵ ^۲ ۵ g
70 06 125	018124	125				3.0	2.3	1.5	121
70 06 140	040293	140	☆ 1000 V ﷺ ► ◄		insulated with multi-component grips, VDE-tested	4.0	2.5	1.8	160
70 06 180	033813	180	-			4.0	3.0	2.5	254
70 07 180	018179	180	£ 1000 V 🆄 🚰 🗲 🕇	chrome plated	with dipped insulation, VDE-tested	4.0	3.0	2.5	269



Diagonal Cutters DIN ISO 5749 IEC 60900 DIN EN 60900

70 NE

The next generation of the KNIPEX classic, with even better features:

20% higher cutting force than the previous model, plus longer cutting edges High cutting force due to optimum cutting geometry and transmission ratio

- > strong precison rivet for even movement and long service-life
- > high-precision cutting edges: additionally induction hardened, cutting-edge hardness approx. 62 HRC
- > narrow head with long cutting edges: good access also in confined areas
- > long tool life and high loading capacity
- > the essential diagonal cutters for diverse use
- > Vanadium steel, forged, multi stage oil-hardened



70 07 160 ☆ 1000 V 🖄 🚰 ►







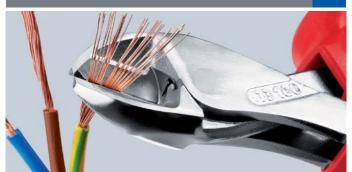


Cuts thin Cu wire accurately, also at the cutting-edge tips

	Cutting capacities		ties						
Article No.	EAN 4003773-	∢ ► mm		Pliers	Handles	Ø mm	0 Ø mm	Ø mm	۲۵ g
70 06 160	021995	160	£ 1000 V 🏝 🚰 🕨 ◄	chrome plated	insulated with multi-component grips, VDE-tested	4.0	3.0	2.0	216
70 07 160	018155	160	숲 1000 V 🖄 🚭 ► 🗨	chrome plated	with dipped insulation, VDE-tested	4.0	3.0	2.0	227
70 26 160	018223	160	桧 1000 V 🆄 🖨 🦯 🥄	chrome plated	insulated with multi-component grips, VDE-tested	4.0			216

KNIPEX X-Cut[®] Compact Diagonal Cutters DIN ISO 5749 IEC 60900 DIN EN 60900

73



Powerful, light and universal Cuts precisely finest strands as well as multi-core cables and piano wires

- > box-joint design: highest stability with low weight
- > doubly supported joint axis for heaviest duty
- > high cutting capacity with very little effort thanks to the optimum co-ordination of cutting-edge angle and leverage ratio
- > large opening width for thicker cables
- > cuts precisely, even through fine copper wires
- > compact, low-weight construction

- > universally usable, in the assembly, maintenance and production
- > Chrome vanadium heavy-duty steel, forged, multi stage oil-hardened



40% less effort required

compared to standard diagonal cutters of the same length. With double mounted hinged joint.

	73 06 160 cop.Piano 8 2,2 mm
· RELIER	HARDER PROVINCIPALITY
	TOOD V ORTHANT
73 06 160	KNIPEX

						Cutting capacities					
Article No.	EAN 4003773-	∢ →→ mm		Pliers	Handles	Ø mm	0 Ø mm	Ø mm	Ø mm	Ø mm	۲۵ g
73 06 160	075141	160	☆1000 V @ ● ¶ <u></u>	chrome plated	insulated with multi-component grips, VDE-tested	4.8	3.8	2.7	2.2	12.0	175

High Leverage Diagonal Cutters DIN ISO 5749 IEC 60900 DIN EN 60900

- > with integrated forged axle for heaviest duty
- > suitable for all types of wire including piano wire
- > high cutting performance with minimum effort due to optimum co-ordination
- > of the cutting edge angle and transmission ratio
- > precision cutting edges additionally induction-hardened, cutting edge hardness approx. 64 HRC
- > Chrome vanadium heavy-duty steel, forged, multi stage oil-hardened

Length 250 mm

the $\overline{250}$ -mm-long diagonal cutter is suitable for copper conductors up to 16 mm² and aluminium conductors up to 35 mm²



20% less effort required

compared to conventional diagonal cutters of the same length. With integrated forged joint axle.

						Cı	itting capacit	ties		
Article No.	EAN 4003773-	∢ ► mm		Pliers	Handles	Ømm	Ømm	Ømm	۲۵ g	
74 06 160	040705	160				3.4	2.5	2.0	215	
74 06 180	022985	180			insulated with multi-component grips,	3.8	2.7	2.2	280	
74 06 200	033820	200	🛧 1000 V 🖄 🚭 🕨 🗨		VDE-tested	4.2	3.0	2.5	308	
74 06 250	041955	250				4.6	3.5	3.0	453	
74 07 200	018414	200	🛧 1000 V 🖄 🔂 🗲 🕇	chrome	with dispad inculation VDE tested	4.2	3.0	2.5	328	
74 07 250	018421	250		plated	with dipped insulation, VDE-tested	4.6	3.5	3.0	510	

Pliers Wrench insulated IEC 60900 DIN EN 60900

> pliers and a wrench in a single tool

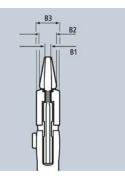
- > also excellent for gripping, holding, pressing and bending workpieces zero backlash jaw pressure prevents damage to edges of sensitive and soft nuts (Cu)
- > with scale for presetting the opening width apart from the workpiece
- > no unintentional shift of the gripping jaws and no slipping of the joint
- > parallel jaws give a more solid grip; the construction gives infinite adjustment of all widths up to the specified maximum size
- > the action of the jaws allows quick tightening and release of bolted connections using the ratchet principle
- > lever transmission greater than 10 : 1 for strong gripping power
- > Chrome vanadium electric steel, forged, oil-hardened



Scale for setting the opening width, apart from the workpiece







									Dimensions			
	EAN	-+				\Box	\Box	Adjustment	B1	B2	B3	5
Article No.	4003773-	mm		Pliers	Handles	Inch	mm	positions	mm	mm	mm	g
86 07 250	065067	250	£1000V @€ ⊂ ⊑	chrome plated	with dipped insulation, VDE-tested	1 3/4	46	17	8.0	8.0	14	615

86

07

KNIPEX Alligator®

Water Pump Pliers DIN ISO 8976 IEC 60900 DIN EN 60900

88

- > more output and comfort compared to conventional water pump pliers of the same length: 9-notch adjustment positioning for 30% more gripping capacity
- > 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 stable gripping
- > box-joint design: high stability because of the double guide guard prevents operators' fingers being pinched
- > Chrome vanadium electric steel, forged, multi stage oil-hardened



tor





Article No.	EAN 4003773-	∢ ► mm		Pliers	Handles	O] Ø Inch	O] Ø mm	mm	Adjustment positions	۵'۵ g
88 06 250	039303	250	≙1000 V 🏝 🗗 🖂	chrome plated	insulated with multi-component grips, VDE-tested	2	50	46	9	374
88 07 250	019343	250	♠1000V @ € আ∏ \ ⊂ \	chrome plated	with dispadingulation VDE tasted	2	50	46	9	420
88 07 300	022350	300		chiome plated	with dipped insulation, VDE-tested	2 3/4	70	60	9	661

Ida

KNIPEX Cobra[®] VDE

Hightech Water Pump Pliers, insulated DIN ISO 8976 IEC 60900 DIN EN 60900

- > adjustment by shifting one jaw directly on to the workpiece: fast, reliable and comfortable handling
- > opening at the touch of a button apart form the workpiece
- > fine adjustment to fit very different workpiece sizes with a comfortable handle position

87

26

- > 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 stable gripping
- > box-joint design: high stability because of the double guide
- > guard prevents operators' fingers being pinched
- > Chrome vanadium electric steel, forged, multi stage oil-hardened







Quick setting without using a push-button



Just push the p iers handle to adjust!



The adjustment procedure to adapt to the workpiece is easy and reliable with the KNIPEX Cobra® VDE: place the upper gripping jaw of the opened pliers on the workpiece, push pliers handle to close, done!

Article No.	EAN 4003773-	∢→ mm		Pliers	Handles	O] Ø Inch	O] Ømm	mm	Adjustment positions	۵'۵ g
87 26 250	071495	250	£ 1000 V @€ আ∭ []]	chrome plated	insulated with multi-component grips, VDE-tested	2	50	46	24	340



Precision Tweezers 92 IEC 60900 DIN EN 60900 > tested according to IEC 60900 KNIPEX 92 27 61 4 > with dipped insulation > nickel plated 92 27 61 > Spring steel, high-strength £1000V ⊂ 92 27 61 for ultra fine mounting work; extra fine tips; straight pattern; gripping surfaces matt finished for optimum grip KNIPEX 92 27 62 straight pattern; gripping surfaces with fine transverse serration 92 27 62 A 1000 V 🕸 আ∭ 92 37 64 angled tips; gripping surfaces with fine transverse serration 92 67 63 straight pattern; knurled gripping surfaces KNIPEX 92 37 64 92 37 64

£ 1000 V ℜ ∡45° আ

	EAN	∢ ►			52
Article No.	4003773-	mm		Finish	g
92 27 61	054757	130	≙ 1000 V 	with dipped insulation	32
92 27 62	054764	150	会 1000 V আ∭	with dipped insulation	35
92 37 64	054856	150	<u> </u>	with dipped insulation	34
92 67 63	054931	145	≙ 1000 V আ∭	with dipped insulation	43



- > for copper single conductors up to 16 mm², multiple stranded wires up to 50 mm², fine stranded up to 70 mm² and aluminium conductors multiple stranded wires up to 70 mm²
- > easy cutting with one-hand operation due to high transmission ratio
- > not suitable for steel wire and hard drawn copper conductors
- > precision ground, hardened blades
- > no crushing, slight deformation of the cable only
- > with guard
- > adjustable bolted joint
- > shears body: surgical steel, stainless, vacuum-hardened
- > handles: plastic, impact-proof



						Cutting capacities			
	EAN	∢ —▶				•	•		52
Article No.	4003773-	mm		Head	Handles	Ømm	mm ²	AWG	g
95 06 230	006305	230	£ 1000 V 🖄 🚭 😂 📲 🖫	polished	plastic insulated, VDE-tested	16	50	1/0	274

Cable Shears IEC 60900 DIN EN 60900

95

- > for cutting copper and aluminium single conductors as well as multiple stranded cables
- > precision ground, hardened blades
- > clean and smooth cut without crushing and deformation
- > easy cutting with one-hand operation
- > guard prevents operators' fingers being pinched
- > adjustable bolted joint, self-retaining 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

							Cutting capacities			
Article No.	EAN 4003773-	∢ ► mm		Style	Tool	Handles	Ø mm	mm ²	AWG	۲ <mark>۵</mark>
95 16 165	039648	165	≙ 1000 V 🖄 🚭 🤁 🖺 🐒	1	chrome plated	insulated with multi-component grips, VDE-tested	15	50	1/0	262
95 26 165	069980	165	≙ 1000 V @ 🚭 🤁 🝧 S MM	2	chrome plated	insulated with multi-component grips, VDE-tested	15	50	1/0	275



95 26 165 ☆ 1000 V € MM 😨 🖭

Cable Shears with twin cutting edge IEC 60900 DIN EN 60900





95

1

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 conductors in the rear part are cut. Initial cut in the front profile, final cut in the rear profile – to keep it as easy as possible.



95 16 200 🛧 1000 V 🖄 🚭 🔁 🎦 (PATENTED)

Cutting capacities <u>م</u>ک FΔN Ømm Article No. 4003773mm Tool Handles mm² AWG q insulated with multi-component grips, 20 70 95 16 200 026761 🚖 1000 V 🖄 🚭 😂 💽 🕻 chrome plated 2/0 340 200 VDE-tested 95 17 200 026952 200 🛧 1000 V 🖄 🚭 😫 🗮 chrome plated with dipped insulation, VDE-tested 20 70 2/0 360

95

1

Cable Shears

IEC 60900 DIN EN 60900



Large cutting capacity: max. 27 mm dia. / 150 mm²

- > for cutting copper and aluminium cables
- > not suitable for 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
- > 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 \emptyset 20 mm can be cut in one-hand operation
- > less effort required due to favourable lever ratio and optimised cutting-edge geometry
- > guard prevents operators' fingers being pinched
- > adjustable bolted joint, self-retaining screw
- > High-grade special tool steel, forged, oil-hardened



ith dipped insulation, VDE-tested 20 70

- > for cutting copper and aluminium single conductors as well as multiple stranded cables
- > not suitable for steel wire and wire ropes precision ground, hardened blades
- > clean and smooth cut without crushing and deformation
- > less effort required due to favourable lever ratio and optimised cutting-edge geometry
- > short design, length only 500 mm
- > low weight
- > guard prevents operators' fingers being pinched
- > adjustable bolted joint
- > Cutter head: vanadium electric steel, forged, oil-hardened
- > handles: aluminium tube, high-strength



						Cutting capacities			
	EAN	∢ →				₿	•		52
Article No.	4003773-	mm		Head	Handles	Ømm	mm ²	AWG	g
95 17 500	026785	500	🚖 1000 V 🖄 🚰 🔁 🖺 🕤	polished	with dipped insulation, VDE-tested	27	150	5/0	1477

Cable Shears IEC 60900 DIN EN 60900

95

2

- > for cutting copper and aluminium single conductors as well as multiple stranded cables
- > not suitable for steel wire and wire ropes
- > precision ground, hardened blades
- > clean and smooth cut without crushing and deformation
- > favourable lever ratio due to toggle lever
- > guard prevents operators' fingers being pinched
- > adjustable bolted joint
- > bolted cutter head, replaceable
- > cutter head: high-grade chrome vanadium electric steel, forged, oil-hardened
- > handles: steel tube



Â1000V @ 🚭 🔁 📲

						Cutting capacities				
	EAN	-				•	•		52	
Article No.	4003773-	mm		Head	Handles	Ømm	mm ²	AWG	g	
95 27 600	021797	600	🚖 1000 V 🖄 🚭 🗣 🖺 🕤	polished	with dipped insulation, VDE-tested	27	150	5/0	2301	
95 29 600	021803	Spare of	cutter head for 95 21 600 / 95 27 600							

95

3

Cable Cutters ratchet action IEC 60900 DIN EN 60900

- > for cutting copper and aluminium single conductors as well as multiple stranded cables
- > not suitable for steel wire and wire ropes
- > precision ground, hardened blades
- > clean and smooth cut without crushing and deformation
- > one-hand 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 low weight and compact design can be used even in confined areas
- > guard prevents operators' fingers being pinched
- > High-grade special tool steel, forged, oil-hardened



Ratchet principle and two-stage ratchet drive for easier cutting



95 36 250 ☆1000V @ 🚭 🚱 MM 📲



95 36 280 £1000V @ € \$ MM \$

95 36 280

suitable for aluminium sector cable up to 4 x 150 mm²

						Cutting c	apacities		
Article No.	EAN 4003773-	∢ ► mm		Tool	Handles	Ø mm	mm ²	MCM	۵ ^۲ ۵ g
95 36 250	026884	250	≙1000V @ 🚭 🤂 MM 🖭	black lacquered	insulated with multi-component grips, VDE-tested	32	240	500	652
95 36 280	026891	280	≙1000V @ 🚭 🤁 MM 🛒	black lacquered	insulated with multi-component grips, VDE-tested	52	380	750	835
	1								
95 39 250	022244	Movab	le spare blade for 95 31 250 / 9	95 36 250					
95 39 280	025283	Movab	le spare blade for 95 31 280 / 9	95 36 280					

Cable Cutter ratchet principle, 3-stage IEC 60900 DIN EN 60900

Sturdy. Easy to use. Stable. Innovative ratchet-drive

For cable up to 60 mm diameter

- > easy handling due to low weight (830 g) and compact construction (320 mm length) – also usable in confined areas
- > cutting through copper and aluminium cables with diameters of up to 60 mm in one-hand and two-hand 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 steel wire and wire ropes)
- > innovative three-stage ratchet-drive with high leverage for easy cutting in one-hand and two-hand operation
- > fixed handle with support area for putting down the pliers when cutting
- > High-grade special tool steel, forged, oil-hardened



95 36 320 ∱1000 V € � \\\\\\\

						Cutting capacities				
Article No.	EAN 4003773-	∢→ mm		Tool	Handles	Ø mm	mm ²	MCM	۲ <mark>۵</mark>	
95 36 320	075189	320	ଛ 1000 V 🏝 🚭 ↔ MM 🖭	black atramentized	insulated with multi-component grips, VDE-tested	60	600	1200	830	
95 39 320 01			cutter repair kit for 95 32 320					-		
95 39 320 02	075721	Fixed	l cutter repair kit for 95 32 320 and 95 36 320							

95

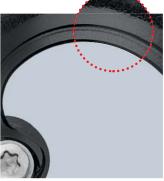
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Cable Cutter

ratchet action

for steel wire armoured cables (SWA cable)

95 36



Precision milled and induction hardened cutting edge



Cuts through steel wire armoured cables with a diameter of up to 45 mm / 380 mm² (e.g. 4 x 95 mm²) using one or two-handed operation

Sturdy. Easy to use. Stable.

> simple handling due to low weight (800 g) and compact design (315 mm length) – can also be used in confined areas

- > precision ground blades and induction hardened cutting edges cut smoothly and neatly without crushing
- > innovative high leverage three-stage ratchet-drive
- > support area for putting down the pliers when cutting
- > not suitable for cutting ACSR cable and wire rope!
- > High-grade special tool steel, forged, multi stage oil-hardened



95 36 315 A ≙ 1000 V @ € ♥ MM € 5

						Cutting capacities				
	EAN	-				۲	۲		5	
Article No.	4003773-	mm		Tool	Handles	Ømm	mm ²	MCM	g	
95 36 315 A	078579	315		black lacquered	insulated with multi-component grips, VDE-tested	45	380	750	800	
95 39 315 A 01	078586	Pivot c	utter repair kit for 95 32 31	5 A and 95 36 315 /	(ratchet action)					
			er repair kit for 95 32 315 A and 95 36 315 A (ratchet action)							
95 39 315 A 02	078593	Fixed c	d cutter repair kit for 95 32 315 A and 95 36 315 A (ratchet action)							

Wire Rope and ACSR-Cable Cutter IEC 60900 DIN EN 60900



- > for wire ropes and steel rods, copper and aluminium cables
- > suitable for cutting overhead line cables with strain relief wire (ACSR cables)
- > angular cutting blades allow cutting of single rope wire
- > optimum transmission ratio for high cutting performance
- > bolted cutter head, replaceable low weight
- > cutter head: high-grade special tool steel, multi stage oil-hardened
- > handles: aluminium, highstrength



							Cutting capacities			
Article No.	EAN 4003773-	∢ → mm		Head	Handles	mm ²	Ø mm	Ø mm	AWG	۲ <mark>۵</mark>
95 77 600	025313	600	£ 1000 V 🕄 🕲 📲	polished	with dipped insulation	150	14.0	9.0	5/0	2359

97

68

95

7

95 79 600 025337 Spare cutter head for 95 71 600 / 95 77 600

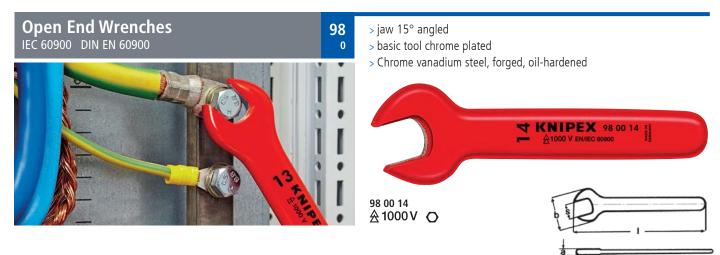
Crimping Pliers for end sleeves (ferrules) IEC 60900 DIN EN 60900



- > for crimping end sleeves (ferrules) according to DIN 46228 parts 1 + 4 in the range from 0.25 up to 2.5 mm^2
- > crimping in marked trapezoidal dies for reliable connections between the sleeve and the conductor
- > Vanadium electric steel; forged, oil-hardened







Article No.	EAN 4003773-		Width across flats S mm	Width across flats S Inch	Length I max. mm	Head width b max. mm	Head thickness a max. mm	۲ <mark>۵</mark>
98 00 07	019824		7.0		105.0	20.0	4.0	15
98 00 08	019831		8.0		105.0	22.0	4.0	31
98 00 09	019848		9.0		105.0	24.0	4.0	29
98 00 10	019893		10.0		105.0	27.0	5.0	40
98 00 11	019909		11.0		120.0	30.0	5.5	45
98 00 12	019923		12.0		125.0	32.0	5.5	70
98 00 13	019930		13.0		130.0	34.0	6.5	68
98 00 14	019947		14.0		135.0	35.0	6.5	86
98 00 15	019954		15.0		145.0	37.0	7.0	80
98 00 16	019961		16.0		155.0	38.0	7.0	112
98 00 17	019978		17.0		155.0	42.0	8.0	119
98 00 18	019985	A 1000 V O	18.0		160.0	44.0	8.0	149
98 00 19	019992	× 1000 V O	19.0		165.0	47.0	9.0	154
98 00 22	020004		22.0		190.0	52.0	9.0	216
98 00 24	020011		24.0		210.0	56.0	9.0	262
98 00 27	020028		27.0		215.0	63.0	9.0	307
98 00 1/4"	019886			1/4	108.0	20.0	4.0	32
98 00 5/16"	020073			5/16	108.0	22.0	4.0	36
98 00 3/8"	020042			3/8	108.0	27.0	5.0	37
98 00 7/16"	020097			7/16	120.7	30.0	5.5	53
98 00 1/2"	019879			1/2	139.7	34.0	6.5	60
98 00 9/16"	020110			9/16	152.4	35.0	6.5	102
98 00 5/8"	020080			5/8	165.1	38.0	7.0	124
98 00 3/4"	020035			3/4	190.5	47.0	9.0	164

98

07

Adjustable Wrench IEC 60900 DIN EN 60900



> parallel smooth gripping jaws

> continuously variable gripping width

> with scaling for presetting the width apart from the workpiece

> Chrome Vanadium steel



	EAN	∢ →				\bigcirc	\bigcirc	Jaw width	Head width	Width	Depth	52
Article No.	4003773-	mm		Tool	Handle	mm	Inch	mm	mm	mm	mm	g
98 07 250	071518	260	≜1000V ⊂ <u>1</u> 22° O	chrome plated	with dipped insulation	30	1 1/8	8.0	16.0	73.0	20.0	500

Box Wrenches IEC 60900 DIN EN 60900

> cranked

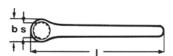
> basic tool chrome plated

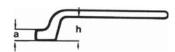
03

> Chrome vanadium steel, forged, oil-hardened



98 0





Article No.	EAN 4003773-		Width across flats S mm	Length I max. mm	Head width b max. mm	Head thickness a max. mm	Depth of crank h max. mm	Δ'Δ g
98 01 07	020134		7.0	150.0	12.0	7.0	18.0	55
98 01 08	020141		8.0	155.0	14.0	7.0	19.0	68
98 01 09	020158		9.0	165.0	15.5	8.0	19.0	78
98 01 10	020196		10.0	160.0	17.0	9.0	20.0	75
98 01 11	020202		11.0	165.0	18.5	10.0	21.0	93
98 01 12	020226		12.0	185.0	18.5	10.0	23.0	118
98 01 13	020233		13.0	185.0	21.5	11.0	23.0	125
98 01 14	020240	≙ 1000 V O	14.0	195.0	23.0	12.0	24.0	147
98 01 15	020257		15.0	200.0	24.0	12.0	24.0	143
98 01 16	020264		16.0	200.0	26.0	12.0	26.0	172
98 01 17	020271		17.0	205.0	27.0	13.0	26.0	184
98 01 18	020288		18.0	210.0	29.0	13.0	28.0	210
98 01 19	020295		19.0	225.0	30.0	14.0	28.0	245
98 01 22	020301		22.0	225.0	35.0	15.0	30.0	278
98 01 24	020318		24.0	265.0	38.0	16.0	30.0	415

98

Nut Drivers with screwdriver handle EC 60900 DIN EN 60900

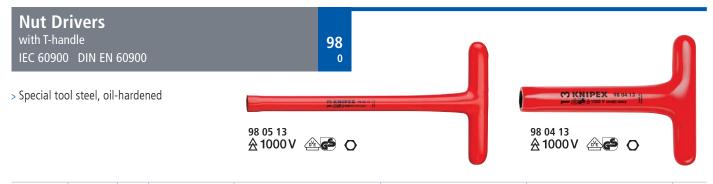
> ergonomically optimised dual component handle for fatigue reduced work and optimum transmission of force

- > handle design prevents rolling
- > Chrome vanadium molybdenum steel

Article No.	EAN 4003773-	∢ ► mm		Point	Handle	Width across flats S mm	Blade length mm	Handle length mm	Head dia. mm	۲ <mark>۵</mark>
98 03 04	071679	230				4.0	125.0	107	9.0	70
98 03 05	071686	230				5.0	125.0	107	10.0	70
98 03 055	026082	232				5.5	125.0	107	11.0	87
98 03 06	026099	232				6.0	125.0	107	12.0	88
98 03 07	026105	237			insulating	7.0	125.0	112	14.0	123
98 03 08	024095	237	A 1000 V A™A O	burnished	multi-component	8.0	125.0	112	15.0	125
98 03 09	026112	237			handle, VDE-tested	9.0	125.0	112	16.0	129
98 03 10	026129	237				10.0	125.0	112	17.0	118
98 03 11	026136	237				11.0	125.0	112	19.0	148
98 03 12	026143	237				12.0	125.0	112	20.0	150
98 03 13	026150	237				13.0	125.0	112	21.0	152



98 03 10 £1000V @€ O



	EAN	∢ →		Width across flats S	Handle length	Head dia.	52
Article No.	4003773-	mm		mm	max. mm	mm	g
98 04 08	071341	200		8.0	90	15.0	344
98 04 10	026167	200	_	10.0	155	19.5	324
98 04 13	026198	200		13.0	155	23.5	344
98 04 17	026211	200	£ 1000 V @ 🖨 🔿	17.0	155	28.5	426
98 04 19	020424	200	_	19.0	155	31.0	525
98 04 22	026228	200	_	22.0	155	34.5	560
98 05 13	026273	300		13.0	155	23.5	409
98 05 17	026297	300	🛧 1000 V 🖄 🖨 🔿	17.0	155	28.5	544
98 05 19	026303	300	-	19.0	155	31.0	674

Screwdrivers for hexagon socket screws IEC 60900 DIN EN 60900

98 1



(NIPE)

08 13 30

363

452

359

90.0

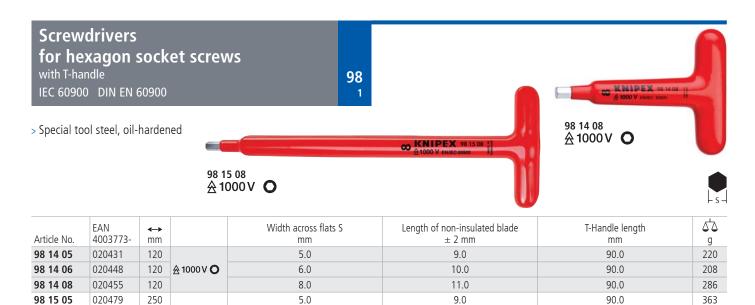
90.0

> ergonomically optimised dual component handle for fatigue reduced work and optimum transmission of force

> handle design prevents rolling

> Chrome vanadium molybdenum steel

Article No.	EAN 4003773-	∢→ mm		Тір	Handle	Width across flats S mm	Blade length mm	Length of non-insulated blade mm	Handle length mm	۵'۵ g
98 13 20	071693	175				2.0	75.0	15.0	102	40
98 13 25	026334	177			insulating multi-component handle, VDE-tested	2.5	75.0	15.0	102	32
98 13 30	026341	182	<u></u> £ 1000 V	burnished		3.0	75.0	15.0	107	49
98 13 40	026358	182	@@ 0	burnished		4.0	75.0	15.0	107	55
98 13 50	026365	187				5.0	75.0	15.0	112	82
98 13 60	026372	212				6.0	100.0	15.0	112	98



10.0

11.0

6.0

8.0

98 15 06

98 15 08

020486

020493

250

250

Screwdrivers for slotted screws IEC 60900 DIN EN 60900

98 2

98 20 55

A 1000 V 🖄 🗗 🖨

- > ergonomically optimised dual component handle for fatigue reduced work and optimum transmission of force
- > handle design prevents rolling
- > Chrome vanadium molybdenum steel

98 21 45

especially for meter assembly with blade length of 180 mm

Article No.	EAN 4003773-	4→ mm		Point	Handle	Blade width mm	Blade thickness mm	Blade length mm	Length of non- insulated blade mm	Handle length mm	۲ <mark>۵</mark>
98 20 10	026396	320				10.0	1.6	200	15	120	184
98 20 25	062325	177				2.5	0.4	75	15	102	32
98 20 30	062332	202				3.0	0.5	100	15	102	35
98 20 35	024217	202	<u></u> € 1000 V		insulating multi-	3.5	0.6	100	15	102	35
98 20 40	026402	202	₽	burnished	component handle, VDE-tested	4.0	0.8	100	15	102	38
98 20 55	024224	232				5.5	1.0	125	15	107	69
98 20 65	026419	262				6.5	1.2	150	15	112	105
98 20 80	024231	295				8.0	1.2	175	15	120	152
98 21 45	026426	287	<u></u> 2000 V 2020 € €	burnished	insulating multi- component handle, VDE-tested	4.5	0.8	180	15	107	66

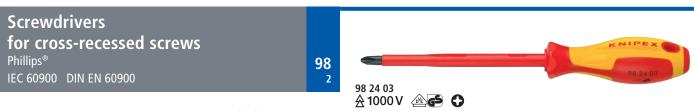
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2

Screwdrivers (Slim) for slotted screws IEC 60900 DIN EN 60900

- > Reduced blade isolation diameter for recessed spring and screw elements
- > ergonomically optimised dual component handle for fatigue reduced work and optimum transmission of force
- > handle design prevents rolling
- > Chrome vanadium molybdenum steel

	EAN	4-				Blade width	Blade thickness	Blade length	Length of non-	Handle	52
Article No.	4003773-	mm		Point	Handle	mm	mm	mm	insulated blade mm	length mm	g
98 20 35 SL	079712	202			insulating multi- component handle, VDE-tested	3.5	0.6	100	15	102	35
98 20 40 SL	079729	202	<u></u> £ 1000 V	burnished		4.0	0 8	100	15	102	38
98 20 55 SL	079736	232	26 0	Duimisneu		5.5	1.0	125	15	107	69
98 20 65 SL	079743	262				6.5	1.2	150	15	112	105



> ergonomically optimised dual component handle for fatigue reduced work and optimum transmission of force

> handle design prevents rolling

> Chrome vanadium molybdenum steel

Phillips® is a registered trademark of Phil ips Screw Company

Article No.	EAN 4003773-	←→ mm		Point	Handle	Size	Blade length mm	Length of non-insulated blade mm	Handle length mm	۵'۵ g
98 24 00	026433	162			insulating multi-	PH0	60	15	102	32
98 24 01	026440	187				PH1	80	15	107	58
98 24 02	026457	212	A 1000 V	burnished	component handle,	PH2	100	18	112	94
98 24 03	026464	270				PH3	150	18	120	165
98 24 04	026471	320				PH4	200	18	120	244



£ 1000 V ≧€ ●



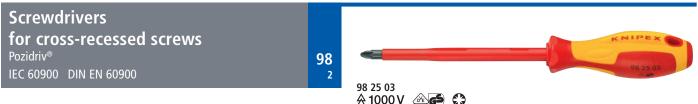
Screwdrivers (Slim) for cross-recessed screws Phillips® IEC 60900 DIN EN 60900



- > Reduced blade isolation diameter for recessed spring and screw elements
- > ergonomically optimised dual component handle for fatigue reduced work and optimum transmission of force
- > handle design prevents rolling
- > Chrome vanadium molybdenum steel

Phil ips® is a registered trademark of Phil ips Screw Company

Article No.	EAN 4003773-	∢→ mm		Point	Handle	Size	Blade length mm	Length of non-insulated blade mm	Handle length mm	Δ ['] Δ g
98 24 01 SL	079750	187	<u> </u>	burnished	insulating multi-	PH1	80	15	107	58
98 24 02 SL	079767	212	∕≙€≎	Durnisneu	component handle, VDE-tested	PH2	100	18	112	94



> ergonomically optimised dual component handle for fatigue reduced work and optimum transmission of force

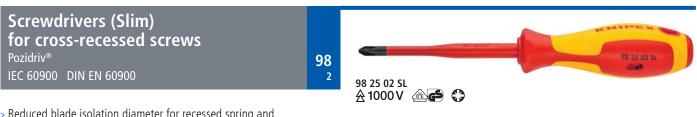
> handle design prevents rolling

> Chrome vanadium molybdenum steel



Pozidriv[®] is a registered trademark of European Ind. Serv. Ltd.

Article No.	EAN 4003773-	∢→ mm		Point	Handle	Size	Blade length mm	Length of non-insulated blade mm	Handle length mm	۵ ^۲ ۵ g
98 25 00	062370	162				PZ0	60	15	102	40
98 25 01	031260	187			insulating multi- component handle, VDE-tested	PZ1	80	15	107	58
98 25 02	031277	212	A 1000 V	burnished		PZ2	100	18	112	94
98 25 03	031284	270				PZ3	150	18	120	165
98 25 04	062387	320				PZ4	200	18	120	244



> Reduced blade isolation diameter for recessed spring and screw elements

> ergonomically optimised dual component handle for fatigue reduced work and optimum transmission of force

> handle design prevents rolling

> Chrome vanadium molybdenum steel



Artikel-Nr.	EAN 4003773-	∢→ mm		Point	Handle	Size	Blade length mm	Length of non-insulated blade mm	Handle length mm	۵ ^۲ ۵ g
98 25 01 SL	079774	187	<u> </u>	burnished	insulating multi- shed component handle, VDE-tested	PZ1	80	15	107	58
98 25 02 SL	079781	212	≜€ ≎	👝 👧 🔗 burnished		PZ2	100	18	112	94

Screwdrivers for Torx[®] screws IEC 60900 DIN EN 60900

98 2

> ergonomically optimised dual component handle for fatigue reduced work and optimum transmission of force

- > handle design prevents rolling
- > Chrome vanadium molybdenum steel



Torx® is a registered trademark of Acument Global Technologies, Inc.

Article No.	EAN 4003773-	∢ ► mm		Point	Handle	Size	Blade length mm	Length of non-insulated blade mm	Handle length mm	۲ _۵ ع
98 26 10	071709	160				TX10	60	15	102	33
98 26 15	071716	185			insulating multi-com-	TX15	80	15	107	58
98 26 20	071723	185	A 1000 V A I I I I I I I I I I I I I I I I I I I	burnished	ponent handle, VDE-tested	TX20	80	15	107	58
98 26 25	071730	185				TX25	80	15	107	58
98 26 30	071747	210				TX30	100	18	112	95



> for use with sockets

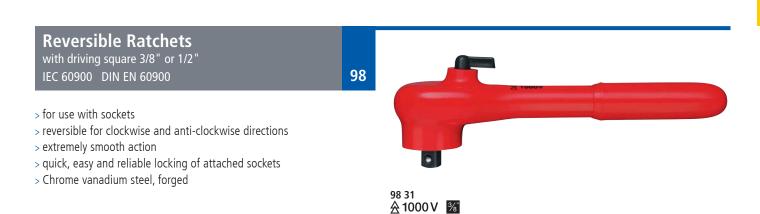
> quick, easy and reliable locking of attached sockets

> basic tool chrome plated

> High-grade special tool steel, forged, oil-hardened



5 EAN **∢**—▶ Handle length Square drive Article No. 4003773mm Inch mm g 98 30 026488 200 **☆ 1000 V** 3⁄6 165 3/8 447 98 40 026501 200 **≙ 1000 V** 1⁄2 165 1/2 631



Article No.	EAN 4003773-	∢→ mm		Square drive Inch	۵ ^۲ ۵ g
98 31	026495	190	<u>A</u> 1000 V 🌃	3/8	324
98 41	026518	265	🛧 1000 V ⊿	1/2	625

Extension Bars

with internal and driving square 3/8" or 1/2" IEC 60900 DIN EN 60900

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

Article No.	EAN 4003773-	∢ ► mm		Square drive Inch	۵ ^۲ ۵ g
98 35 125	020530	125	A 1000 V 🔏 🕲	3/8	149
98 35 250	020547	250	X 1000 V 🔀 🕲	3/8	294
98 45 125	020813	125	A 1000 V 💋 🗵	1/2	258
98 45 250	020820	250	X 1000 V 🖄 🕲	1/2	490

Hexagon Sockets

for hexagonal screws for internal square 3/8" or 1/2"

IEC 60900 DIN EN 60900

98

98

0

0

KNIPEX 48 35 125

98 35 125 <u>А</u> 1000 V № 🕅

98 45 250 会 1000 V ½ 👔



- > basic tool chrome plated
- > Chrome Vanadium steel



KNIPEX



98 37 17 会1000 V ◎ 🔞



98 47 17 **☆1000V ◎**

Article No.	EAN 4003773-		Width across flats S mm	Dia. of effective tool side d max. mm	Square drive Inch	۲۵ g												
98 37 10	020578		10.0	18.7	3/8	32												
98 37 11	020585		11.0	20.0	3/8	32												
98 37 12	020608		12.0	21.2	3/8	33												
98 37 13	020615		13.0	22.5	3/8	33												
98 37 14	020622	A 1000 V O ເ⊛	14.0	23.7	3/8	39												
98 37 16	027263		16.0	26.2	3/8	53												
98 37 17	020639		17.0	27.5	3/8	61												
98 37 19	020646		19.0	30.0	3/8	73												
98 47 10	020882		10.0	19.5	1/2	63												
98 47 11	020899		11.0	20.7	1/2	61												
98 47 12	020912	-	-	-	1	-	-		-	_	-	-			12.0	23.0	1/2	64
98 47 13	020929		13.0	23.2	1/2	64												
98 47 14	020943		14.0	24.5	1/2	67												
98 47 16	027287		16.0	26.9	1/2	69												
98 47 17	020967	≜ 1000 V O 🕲	17.0	28.2	1/2	75												
98 47 18	027294	-	18.0	29.0	1/2	81												
98 47 19	020974		19.0	30.7	1/2	99												
98 47 22	020981		22.0	34.5	1/2	125												
98 47 24	020998		24.0	37.0	1/2	151												
98 47 27	021001		27.0	41.0	1/2	183												

Hexagon Sockets for internal square 3/8" or 1/2" IEC 60900 DIN EN 60900

> with double-hex

- > for imperial hexagonal head screws
- > basic tool chrome plated
- > Chrome Vanadium steel

98

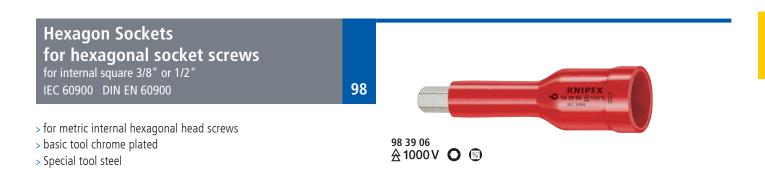




98 37 5/8" À 1000 V ◎ 🚱



Article No.	EAN 4003773-		Width across flats S Inch	Dia. of effective tool side d max. mm	Square drive Inch	۲۵ و
98 37 5/16"	020684		5/16	16.2	3/8	30
98 37 3/8"	020677		3/8	18.7	3/8	31
98 37 7/16"	020707		7/16	20.0	3/8	31
98 37 1/2"	020554	会1000∨ © 	1/2	22.5	3/8	33
98 37 9/16"	020721		9/16	23.7	3/8	39
98 37 5/8"	020691		5/8	26.2	3/8	51
98 37 3/4"	020660		3/4	30.0	3/8	71
98 47 1/2"	020875		1/2	23.2	1/2	67
98 47 9/16"	021094		9/16	24.5	1/2	64
98 47 5/8"	021063		5/8	26.9	1/2	72
98 47 11/16"	020905	≙ 1000 V O 	11/16	28.2	1/2	88
98 47 3/4"	021018		3/4	30.7	1/2	97
98 47 7/8"	021087		7/8	34.5	1/2	124
98 47 1"	020868		1	41.0	1/2	167



Article No.	EAN 4003773-	∢ ► mm		Width across flats S mm	Length of non-insulated blade \pm 2 mm	Square drive Inch	۲ _۵ ع
98 39 05	020776	75		5.0	9	3/8	59
98 39 06	020783	75	<u> </u>	6.0	10	3/8	58
98 39 08	020790	75		8.0	11	3/8	71
98 49 05	021155	75		5.0	9	1/2	68
98 49 06	021162	75	<u></u> £ 1000 V O ⊗	6.0	10	1/2	72
98 49 08	021179	75		8.0	11	1/2	87

Reversible Ratchet with driving square 1/2" ISO 3315 IEC 60900 DIN EN 60900

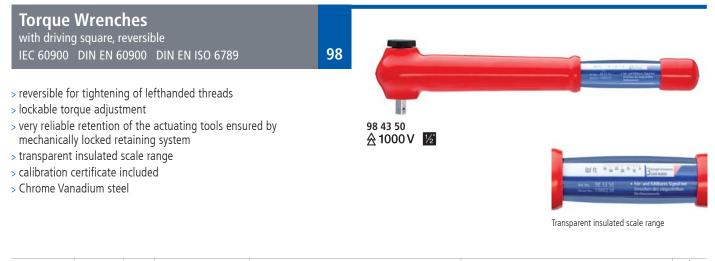
- > reversible for clockwise and anti-clockwise directions
- > very reliable retention of the actuating tools ensured by mechanically locked retaining system
- > Chrome Vanadium steel



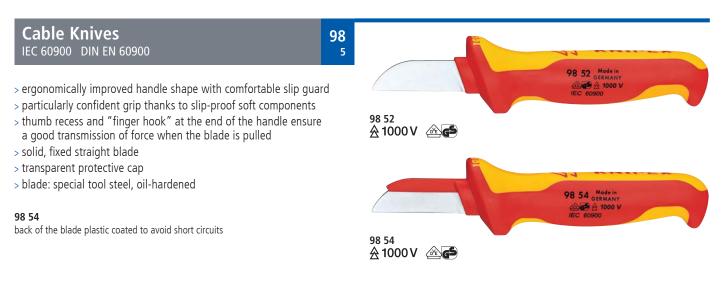
A 1000 V 1/2

98

Article No.	EAN 4003773-	∢-→ mm		Square drive Inch	۵ ^۲ ۵ g
98 42	026525	265	🛧 1000 V 💋	1/2	599



Article No.	EAN 4003773-	∢— ► mm		Range of Application	Square drive Inch	d d g
98 33 25	072676	290	A 10001/ FM	5 - 25 Nm	3/8	1230
98 33 50	071761	385	- <u>余</u> 1000 V <mark>‰</mark>	5 - 50 Nm	3/8	1230
98 43 50	071778	385	A 1000 V 🜠	5 - 50 Nm	1/2	1230



Article No.	EAN 4003773-	∢ ► mm		Handle	Blade length mm	۲ <mark>۵</mark>
98 52	035565	185	会 1000 V @	insulating multi-component handle, VDE-tested	50	77
98 54	026563	180	£ 1000 V 🖄 🖨	insulating multi-component handle, VDE-tested	50	77

Dismantling Knives IEC 60900 DIN EN 60900

> ergonomically improved handle shape with comfortable slip guard

- > particularly confident 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, vacuum-hardened





Guide shoe 98 55

Article No.	EAN 4003773-	∢ → mm		Handle	Blade length mm	Radius mm	۵'۵ g
98 53 03	026549	155	会 1000 V 🖄 🖨	insulating multi-component handle, VDE-tested	28	7.0	77
98 53 13	026556	180	🚖 1000 V 🖄 🖨	insulating multi-component handle, VDE-tested	50	40.0	77
98 55	022558	155	🛧 1000 V 🖄 🖨	insulating multi-component handle, VDE-tested	38	23.5	77

98

5

98 55

£1000V ▲

98 5

Cable Knife

with replaceable blade IEC 60900 DIN EN 60900

- > straight blade with special sharpening; replaceable> with hinged blade guard, integrated in the handle, captive
- > back of the blade plastic coated to avoid short circuits
- > ergonomically shaped insulating handle
- > blade: surgical steel, stainless, vacuum-hardened

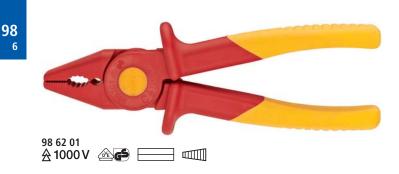


1000 V @€

Article No.	EAN 4003773-	∢ ► mm		Blade length mm	۵'۵ g
98 56	026570	185	☆1000V 🏝 📻	50	64
98 56 SB	033516	185		50	64
98 56 09					

Flat Nose Pliers of plastic insulating IEC 60900 DIN EN 60900 ASTM F1505

- > fully insulating to reduce risk of short circuit
- > for meter assembly and meter blocking
- > class C; range of use up to -40°C
- > plastic material, fibreglass-reinforced
- > handles with soft plastic zone for better grip





Article No.	EAN 4003773-	∢→ mm		ے'ک g
98 62 01	073956	180	A 1000 V 🎪 🚅 🥅 আ∭	120

KNIPEX presents high-quality and sturdy plastic pliers featuring protection against bridging for working on live parts up to AC 1000V and DC 1500V.

These solid plastic pliers do not act on magnetic fields either and they are fully spark-free. They are also excellent for use in chemically aggressive environments.

Snipe N	lose Pliers	of plastic
insulating		
IEC 60900	DIN EN 60900	ASTM F1505

> fully insulating to reduce risk of short circuit

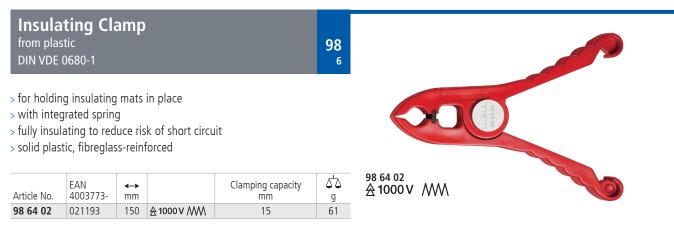
- > class C; range of use up to -40°C
- > plastic material, fibreglass-reinforced
- > handles with soft plastic zone for better grip



98 62 02 ≙ 1000 V ≧€ ⊖ □□□



	EAN	-		5
Article No.	4003773-	mm		g
98 62 02	073963	220	£ 1000 V 🖄 💕 🕀 আ∭	130



80	<u></u> £ 1000 V	2	8	
80		3	8	
g Sli	ip-On (Caps	98 6	
le end	S			
∢ ► mm		Inside dia. mm	۵ ^۲ ۵ g	98 65 30 ☆ 1000 V
80		10	9	
100	<u></u> £ 1000 V	20	39	

Conductor key

1

30

Electricians' Gloves IEC 60903 DIN EN 60903

> for added protection when working live or close to live parts > classification: 0

110

Article No.	EAN 4003773-		Size	۵'۵ g	
98 65 40	021285		9	290	
98 65 41	021292	<u> </u>	10	288	9
98 65 42	077862		11	290	

Insulating Mats from rubber IEC 61112 DIN EN 61112

> for added protection when working live or close to live parts

Article No.	EAN 4003773-		Dimensions mm	Thickness mm	۵'۵ g
98 67 05	026600	A 1000 V 🖄 🖨	500 x 500	1.0	301
98 67 10	026617	<u>☆</u> 1000 V @\$ @	1,000 x 1,000	1.0	1200
98 67 15	077831		10,000 x 1,000	1.0	12000

Stand M	ats	
from rubber		
IEC 61112	DIN EN 61112	

> for site insulation when working live or close to live parts

Article No.	EAN 4003773-		Dimensions mm	Thickness mm	۵'۵ g
98 67 20	077848		1,000 x 1,000	4.0	4700
98 67 25	077855	≙1000V 🖄 🖨 -	10,000 x 1,000	4.0	40000



225

KNIPEX

98 67 05 会1000 V 🖄 🗲

98 65 40 **☆ 1000 V**



MENIPEX

98 65 03 会 1000 V 52

98

g

7

52

98

98

98 6

6

6

Plastic Slip-On Caps

DIN VDE 0680-1

EAN

4003773-

021209

021216

021223

Self-Clamping DIN VDE 0680-1

> to cover bare live cable

EAN

4003773-

021230

021247

021261

> Plastic

Article No.

98 65 01

98 65 02

98 65 03

> Plastic

Article No.

98 65 10

98 65 20

98 65 30

> to cover bare live cable ends (max. 10 mm dia.)

∢—▶

mm

PUK[®] Junior Hacksaw IEC 60900 DIN EN 60900

> saw blade for metal and wood with 25 teeth per inch, exchangeable

98 90

Article No.	EAN 4003773-	∢— ► mm		Saw blade length mm	۲۵ g
98 90	028321	240	<u></u> £ 1000 V	150	174



PUK[®] is a registered trade mark of Josef Haunstetter Sägenfabrik KG

Compact Tool Case

17 parts with insulated tools for works on electrical installations	98
IEC 60900 DIN EN 60900	9

- > shock-resistant plastic case
- > equipped with a range of insulated KNIPEX tools for works on electrical installations
- > foam inserts with recesses for the tools
- > fixable partition wall
- > dimensions, exterior (W x H x D): 360 x 110 x 310 mm



98 99 11 ☆ 1000 V

Article No.	EAN 4003773-				Quantity	۲ g
98 99 11 02	026624		Compact To	ol Case 17 parts		3675
		🛧 1000 V 🖄 🖨 💷 🕨 🕇	03 07 200	Combination Pliers	1	
		🛧 1000 V 🖄 😭 🗲 🕇	70 07 160	Diagonal Cutter	1	
			98 20 35		1	
		🛧 1000 V 🖄 😭 🖨	98 20 40	Screwdrivers for slotted screws	1	
			98 20 55		1	
		🛧 1000 V 🖄 😭 🗘	98 24 00	Screwdriver for cross recessed screws, Phillips®	1	
		<u> </u>	98 42	Reversible Ratchet, with driving square 1/2"	1	
		☆ 1000 V 1⁄2 1⁄2	98 45 125		1	
			98 45 250		1	
			98 47 10		1	
			98 47 11		1	
			98 47 12		1	
		<u></u> £ 1000 V 🔿 🕼	98 47 13	Hexagon Socket for hexagonal screws, with internal square 1/2"	1	
			98 47 14		1	
			98 47 17		1	
			98 47 19		1	
		<u></u> £ 1000 V @ €	98 52	Cable Knife	1	

00 20

- > high quality, versatile, shock-resistant plastic case
- > foam insert with honeycomb structure for variable equipment
- > dimensions, exterior (H x W x D): 65 x 327 x 275 mmm

00 20 15

all pliers VDE tested according to DIN EN/IEC 60900 1000V, pliers finish 6

00 21 15 LE without tools



00 20 15 <u>2</u>1000 V ▲

Article No.	EAN 4003773-				Quantity	۵ ^۲ ۵ g
00 20 15	024804		Compact-Box	k 4 parts		1430
		1000 V @ 🚰 💷 🚺 🕨 🗨	03 06 180	Combination Pliers	1	
		£ 1000 V @ € MM	11 06 160	Wire Stripper	1	
			26 16 200	Snipe Nose Side Cutting Pliers	1	
		£ 1000 V @ 🚰 🗲	70 06 160	Diagonal Cutter	1	
00 21 15 LE	045175		Tool Box emp	oty		530

00 21

Tool-Box	
7 parts for electrical contractors	
for electrical contractors	

> high quality, versatile, shock-resistant plastic case

- > foam insert with honeycomb structure for variable equipment
- > dimensions, exterior (H x W x D): 65 x 327 x 275 mm

00 21 15

all pliers and screwdrivers except Water Pump Pliers VDE tested according to DIN EN/IEC 60900

00 21 15 LE without tools



00 21 15

Article No.	EAN 4003773-					Quantity	Nominal size	۲ <mark>۵</mark>
00 21 15	042853		Tool Box 7 pa	arts				1520
		🛧 1000 V 🖄 🚭 💷 🚺 💌	03 06 180	Combination Pliers		1	180 mm	
		£ 1000 V @ € ⊖ ====	26 16 200	Snipe Nose Side Cutting Pliers	Knipex	1	200 mm	
		🛧 1000 V 🖄 🚭 💌 🗨	70 06 160	Diagonal Cutter		1	160 mm	
			88 03 180	KNIPEX Alligator®		1	180 mm	
		♠ 1000 V 🖄 🛋 🖨	006100	Screwdrivers for slotted screws. 160i	Wera	1	0.4 x 2.5 x 80 mm	
			006115	screwarivers for slotted screws, roor		1	0.8 x 4.0 x 100 mm	
		A 1000 V 🖄 🚭 🗘	006152	Screwdrivers for cross recessed Phillips® screws, 162i PH		1	PH1 x 80 mm	
00 21 15 LE	045175		Tool-Box emp	oty				530



98 99 12 ☆ 1000 V

Article No.	EAN 4003773-				Quantity	۲ g
98 99 12	026631		Standard To	ool Case 26 parts		5533
		🛧 1000 V 🖄 🖨 🏧 🕨 🕈	03 07 200	Combination Pliers	1	
		🛧 1000 V 🖄 🚅 🕨 ◄	70 07 160	Diagonal Cutter	1	
			98 00 10		1	
			98 00 11		1	
			98 00 12		1	
		<u></u> £ 1000 V ○	98 00 13	Open End Wrench	1	
			98 00 14		1	
		_	98 00 17		1	
		_	98 00 19		1	
		<u> </u>	98 53 03	Dismantling Knife for round cables	1	
			98 20 25	Screwdrivers for slotted screws	1	
			98 20 35		1	
			98 20 40		1	
			98 20 55		1	
			98 24 00		1	
		🛧 1000 V 🖄 😭 🛟	98 24 01	Screwdriver for cross recessed screws, Phillips®	1	
			98 24 02		1	
		<u> </u>	98 40	T-Handle Drive, with driving square 1/2"	1	
			98 47 10		1	
			98 47 11		1	
			98 47 12		1	
	<u></u> 1000 V ○ 🕅	£ 1000 V 🔿 🕲	98 47 13	Hexagon Socket for hexagonal screws, with internal square 1/2"	1	
			98 47 14		1	
			98 47 17		1	
			98 47 19		1	
		<u> </u>	98 52	Cable Knife	1	

Tool Roll 15 parts with insulated tools for works on electrical installations IEC 60900 DIN EN 60900

98

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



98 99 13 ☆1000 V

Article No.	EAN 4003773-				Quantity	۲ g
98 99 13	026648		Tool Roll 15	parts		2455
		🚖 1000 V 🖄 🚭 💷 🚺 🕨 🔍	03 07 200	Combination Pliers	1	
		£ 1000 V @€ ₩M	11 07 160	Insulation Stripper	1	
		🛓 1000 V 🖄 🚭 🖯 💷 🚺 💌	26 17 200	Snipe Nose Side Cutting Pliers, (Stork Beak Pliers)	1	
		£ 1000 V 🖄 🚭 💌	70 07 160	Diagonal Cutter	1	
		🛧 1000 V 🖄 🚭 🤁 🖺 🕤	95 17 200	Cable Shears, with twin cutting edge	1	
			98 00 10		1	
			98 00 13		1	
		£ 1000 V Ο	98 00 14	Open End Wrench	1	
			98 00 17		1	
			98 00 19		1	
			98 20 25		1	
		A 1000V @ 🛋 🗨	98 20 40	Screwdrivers for slotted screws	1	
			98 20 55	Screwarivers for slotted screws	1	
			98 20 65		1	
		≙ 1000 V 🖄 🚭	98 52	Cable Knife	1	

Universal Tool Case

48 parts with insulated tools for works on electrical installations IEC 60900 DIN EN 60900

98 9

98 99 14

- > hard-wearing case made of ABS material, red; containing a range of KNIPEX tools for works on electrical installations, tested according to DIN EN/IEC 60900, as well as insulating mats, clamps and gloves for added protection
- > sturdy aluminium frame with D-shape rings for belt and fix, sturdy centre 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
- > 30 kg 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 two flip-locks for fixation of the cover
- > removable document compartment and removable tool board, with 13 push-in compartments on one side
- > two flip-locks to fix the bottom

- > base tray, height 58 mm, can be subdivided by flexible inserts; cover plate with six large push-in compartments, can be fixed by popper
- > dimensions, external (H x W x D): 255 x 490 x 410 mm dimensions, internal (H x W x D) : (105 + 105) x 445 x 350 mm

00 21 40 T

- > telescopic handle for rolling transport of tool case
- > applicable for cases: 00 21 40 LE Tool Case "BIG Twin", 98 99 14 Universal Tool Case
- > height adjustable handle with catch
- > integrated mechanism for fixation to the case, for rapid assembly and removal
- > with two smooth running rolls
- > dimensions: 60 x 245 x 400 (1.000) mm (extended)

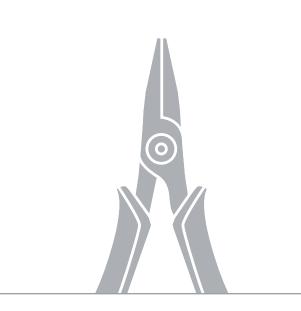




Article No.	EAN 4003773-				Quantity	۵'۵ g
98 99 14	026655	Universal Tool Case 48 part	S			16250
		A 1000 V @₽ 💷 ►	03 07 200	Combination Pliers	1	
		<u> </u>	11 17 160	Insulation Stripper	1	
		🛧 1000 V 🖄 🚰 🗲	70 07 160	Diagonal Cutter	1	
		£ 1000 V @€ 💷 🗔	88 07 250	KNIPEX Alligator [®] , Water Pump Pliers	1	
		🛧 1000 V 🖄 🚭 🛠 🖺 🕻	95 17 200	Cable Shears, with twin cutting edge	1	
			98 00 10		1	
		_	98 00 13		1	
		_	98 00 14	Open End Wrench	1	
		_	98 00 17		1	
		_	98 00 19		1	1
		≙ 1000 V O	98 00 22		1	
			98 01 10	_	1	
			98 01 13		1	
		_	98 01 14	Box Wrench	1	
			98 01 17		1	
		_	98 01 19		1	
			98 01 22		1	4
		∱ 1000 V 🏤 🚰	98 67 05	Insulating Mat, from rubber	3	4
		☆ 1000 V 🖄 🗲 🖨	98 20 25	_	1	4
			98 20 40	Screwdrivers for slotted screws	1	
			98 20 55		1	
			98 20 65		1	
		🛧 1000 V 🖄 💣 🗘	98 24 01	Screwdriver for cross recessed screws, Phillips®	1	
			98 24 02		1	
		A 1000 V 1∕2	98 40	T-Handle Drive, with driving square 1/2"	1	
		<u></u> £ 1000 V ½	98 42	Reversible Ratchet, with driving square 1/2"	1	
		🛧 1000 V ½ 🔞	98 45 125	Extension Bar, with internal/external square 1/2"	1	
			98 45 250		1	
		_	98 47 10	_	1	
		_	98 47 11	_	1	
		_	98 47 12 98 47 13	_	1	
		☆ 1000 V 🔿 🕲	98 47 13	Hexagon Socket for hexagonal screws, with internal square 1/2"	1	
			98 47 14	Hexagon socket for nexagonal screws, with internal square 1/2	1	
		_	98 47 17	-	1	
		_	98 47 22	-	1	
		_	98 47 22		1	
			98 47 24	Cable Kn fe	1	
		- <u>A</u> 1000 V ≙}	98 53 03	Dismantling Kn fe for round cables	1	
		\$1000V MM	98 64 02	Insulating Clamp, from plastic	6	
		☆1000V /\\\\ ☆1000V	98 64 02 98 65 40	Electricians' Gloves	1	
98 99 14 LE	060703	Z 1000 V		ol Case empty	1	8235
00 21 40 T	062981			ol case empty Illing case transport		1200

Electronics Pliers and Precision Tweezers

Electronic <i>Super Knips</i> ® / ESD	234
Precision Electronics Diagonal Cutters / ESD	236
Electronics Diagonal Cutters / ESD	238
Electronics Diagonal Cutters with carbide metal cutting edges	241
Electronics End Cutting Nippers / ESD	242
Electronics Oblique Cutting Nipper	243
Precision Electronics Gripping Pliers / ESD	244
- with precision laser cut cross-shaping	244
Electronics Pliers / ESD	245
Electronics Mounting Pliers	247
Electronics Pliers Sets	248
Precision Tweezers	249



Electronic Super Knips® DIN ISO 9654

78

- > precision pliers for ultra fine cutting work,
- e. g. in electronics and fine mechanics
- > ground, very sharp cutting edges without bevel
- > precision shaped tips cut wires resting on a board from 0.2 mm dia.
- > joint with stainless steel rivet
- > cutting edges additionally induction hardened
- > extremely smooth movement for minimum operator fatigue
- > with opening spring and opening limiter
- > in INOX or special tool steel

78 03 125/ESD / 78 23 125

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

78 13 125/ESD

 INOX - stainless steel; cutting edge hardness approx. 54 HRC; with lead catcher – no uncontrolled loss of cut wire ends

78 31 125

cutting edges additionally induction hardened, cutting edge hardness approx. 60 HRC; with narrow head; special tool steel, polished

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, polished

78 61 125/ESD

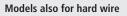
cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC; also suitable for cutting glass f bre cables (f bre optics)

78 71 125/ESD

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







78 81 125

precision ground cutting edges with very small bevel suitable also for hard wire; special tool steel, polished; cutting-edge hardness approx. 64 HRC

78 91 125

precision ground cutting edges with very small bevel suitable also for hard wire; with lead catcher – no uncontrolled loss of cut wire ends; special tool steel, polished; cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC

ESD pliers (electrostatic discharge)

Electrostatic energy is discharged through the handles in a gradual and controlled manner which 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













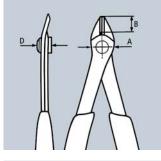


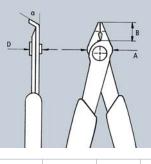












							Cut	ting capac	ities	D	imensior	IS	
Article No.	EAN 4003773-	∢ →→ mm		Pliers	Head	Handles	Ømm	0 Ømm	Ø mm	B mm	A mm	D mm	۵'ک g
78 03 125	035381	125	X88 🗾 XXX		polished	with multi-component grips	0.2 - 1.6	1.0		9.0	13.5	7.5	56
78 03 125 ESD	025146	125	🛦 🕸 🔼 🕅		polished	with multi-component grips	0.2 - 1.6	1.0		9.0	13.5	7.5	55
78 13 125	035398	125	≪ MM ►		polished	with multi-component grips	0.2 - 1.6	1.0		9.0	13.5	7.5	57
78 13 125 ESD	025153	125	🛦 🕸 🔼 MM >>		polished	with multi-component grips	0.2 - 1.6	1.0		9.0	13.5	7.5	57
78 23 125	043096	125	x\$8 <u>∡6</u> 0° / 		polished	with multi-component grips	0.2 - 1.0	0.6		5.5	13.5	7.5	55
78 31 125	039778	125	A 🔪 🗾 🕬	burnished	polished	with multi-component grips	0.2 - 1.0			9.0	12.5	7.5	55
78 41 125	040767	125	≪ MM ►	burnished	polished	with multi-component grips	0.2 - 1.0			9.0	12.5	7.5	57
78 61 125	035404	125	AK 🔪 🔨	burnished	polished	with multi-component grips	0.2 - 1.6	1.2		9.0	13.5	7.5	56
78 61 125 ESD	025184	125	A 14 14 14 14 14 14 14 14 14 14 14 14 14	burnished	polished	with multi-component grips	0.2 - 1.6	1.2		9.0	13.5	7.5	56
78 71 125	043799	125	& / \ 	burnished	polished	with multi-component grips	0.2 - 1.6	1.2		9.0	13.5	7.5	57
78 71 125 ESD	025191	125	🛦 🕸 🔼 MM >>	burnished	polished	with multi-component grips	0.2 - 1.6	1.2		9.0	13.5	7.5	57
78 81 125	065074	125	XXX 🔽 XXX	burnished	polished	with multi-component grips	0.2 - 1.6	1.2	0.6	9.0	13.5	7.5	57
78 91 125	065081	125	& / / / / 	burnished	polished	with multi-component grips	0.2 - 1.6	1.2	0.6	9.0	13.5	7.5	57

Precision Electronics Diagonal Cutters DIN ISO 5746

- > precision pliers for ultra fine cutting work,
 e. g. in electronics and fine mechanics
- > very precisely ground and sharp cutting edges with very small bevels for exact cutting on delicate electronic components; also available without bevel for flush cutting
- > cutting edges additionally induction hardened, 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 optimised multi- component handles
- > Chrome vanadium ball-bearing steel, forged, multi stage oil-hardened

Cut with

79 42 125

(without bevel)

79 02 120

mini-head

79 02 125 round head

79 12 125

specially for cutting through hard wire and piano wire

79 32 125 pointed head

79 42 125 Z for an optimised flush cutting result of soft materials

79 52 125

pointed head; with lead catcher – no uncontrolled loss of cut wire ends



79

79 02 120

79 02 125

88 🗾

88 🗾

Cut with 79 42 125 Z (flush cut)



NM 🛃 📕



79 02 120

Cu/hard max. Ø 0,2-1,4/max. 0,6mm

79 22 120

88 🗾

🕸 🔼 📰 WM





The subtle 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 even without backlash. Each work step proceeds reliably and precisely. This makes work much easier for professionals. flush cut
cutting edges without been

cutting edges without bevel
 cutting edges with very small bevel

								Cutting o	apacities		D	imensio	ns	
Article No.	EAN 4003773-	∢ ► mm		Pliers	Head	Handles	Ø mm	Ø mm	Ø mm	Ømm	B mm	A mm	D mm	g g
79 02 120	061403	120	* ~~ \$\$	burnished	polished	with multi-component grips	0.2 - 1.4	1.0	0.6		6.5	9.0	6.5	57
79 02 125	061281	125	** ~ ~ £ 3 MM	burnished	polished	with multi-component grips	0.2 - 1.7	1.3	0.7		10.0	11.0	6.5	59
79 12 125	071365	125	** ~~ ** ////	burnished	polished	with multi-component grips	0.3 - 1.7	1.3	1.0	0.6	10.0	11.0	6.5	59
79 22 120	061427	120	🕸 🔼 其 🕷	burnished	polished	with multi-component grips	0.1 - 1.3	0.8			6.5	9.0	6.5	56
79 22 125	061342	125	X8 🔽 🚺 🕅	burnished	polished	with multi-component grips	0.1 - 1.7	1.0			10.0	11.0	6.5	60
79 32 125	061366	125	* * * * * * **	burnished	polished	with multi-component grips	0.2 - 1.5	1.1	0.6		11.0	11.0	6.5	58
79 42 125	061380	125	* 🔨 💽 MM	burnished	polished	with multi-component grips	0.1 - 1.5	0.8			11.0	11.0	6.5	58
79 42 125 Z	078449	125	* * * * * * * * * *	burnished	polished	with multi-component grips	0.1 - 1.3				11.0	11.0	6.5	58
79 52 125	065135	125	* ~ 13 M>	burnished	polished	with multi-component grips	0.2 - 1.3	0.9	0.5		11.0	11.0	6.5	58
79 62 125	065142	125	* / \]	burnished	polished	with multi-component grips	0.1 - 1.3	0.8			11.0	11.0	6.5	58

79 02 120 ESD 🛵

Cu/hard max. Ø 0,2-1,4/max

Precision Electronics Diagonal Cutters ESD DIN ISO 9654

Electrically discharging handles - dissipative

779 02 120 ESD mini-head

79 02 125 ESD round head

79 12 125 ESD specially for cutting through hard wire and piano wire

79 22 120 ESD mini-head

79 22 125 ESD round head

79 32 125 ESD pointed head

79 42 125 ESD pointed head

79 42 125 Z ESD for an optimised flush cutting result of soft materials 79

79 52 125 ESD pointed head with lead catcher – no uncontrolled loss of cut wire ends

79 62 125 ESD pointed head with lead catcher – no uncontrolled loss of cut wire ends



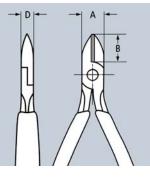
NM 🛃 🖌

79 02 120 ESD

🙈 🕸 🗾







79 22 125 ESD

NMN 📲 F

79 42 125 ESD

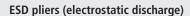
🛦 🕸 📕



A & T ES AWA

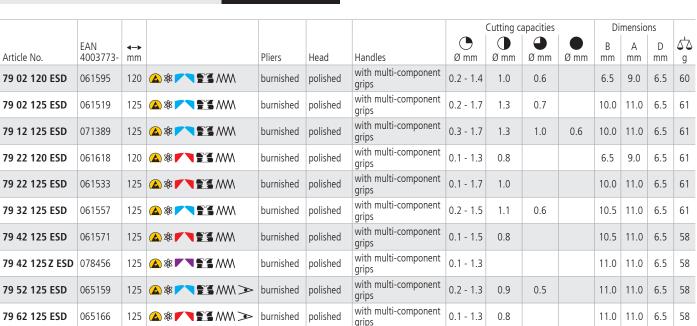


79 42 125 Z ESD



Electrostatic energy is discharged through the handles in a gradual and controlled manner which 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





Electronics Diagonal Cutters DIN ISO 9654

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

Style 0

with bevel

Style 1

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

Style 2

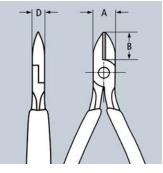
with small bevel

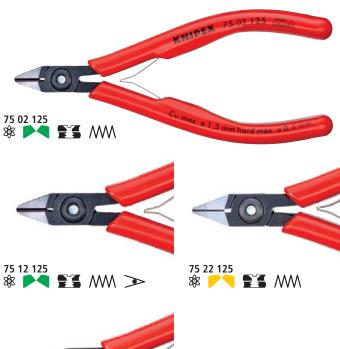
Style 5

particularly narrow head, with bevel



Bolted joint







		1												1
							Ci	utting cap	oacities		D	imensio	ns	
	EAN	>					\bullet				А	В	D	5
Article No.	4003773-	mm		Style	Pliers	Handles	Ømm	Ømm	Ømm	Ømm	mm	mm	mm	g
75 02 125	040491	125	* * * * * * * * * * * * * * * * * * *	0	burnished	with plastic grips	0.2 - 1.3	1.0	0.6	0.4	10.5	14.0	6.5	81
75 12 125	040514	125	* >	1	burnished	with plastic grips	0.2 - 1.3	1.0	0.6	0.4	10.5	14.0	6.5	80
75 22 125	040538	125	MM 🗾 🦯 🐝	2	burnished	with plastic grips	0.2 - 1.3	0.9	0.4	0.3	10.5	14.0	6.5	79
75 52 125	040576	125	* 🗖 📲 🕷 MM	5	burnished	with plastic grips	0.2 - 0.8	0.5	0.3		10.5	14.0	6.5	79

Electronics Diagonal Cutters DIN ISO 9654

77

- > 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 offer effective rust protection – no circuit faults caused by peeling chrome from plated tools
- > cutting edges additionally induction hardened, cutting edge hardness approx. 62 HRC
- > High-grade special tool steel, forged, multi stage oil-hardened

77 01 115 / 77 02 130 round head, with bevel

77 32 115 pointed head, with small bevel

77 72 115

77 02 115 / 77 22 130 round head, with small bevel

77 42 115 / 77 42 130 pointed head, without bevel; cutting edge

77 11 115 / 77 12 115 round head, with bevel and lead catcher – no uncontrolled loss of cut wire ends

77 52 115 pointed, flat head, with small bevel; cutting edge hardness approx. 57 HRC

pointed mini-head, with small bevel

hardness approx. 57 HRC

pointed head, without bevel

77 21 130 round head, without bevel

77 22 115

77 21 115

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

















						Cutt	ing capac	ities	D	imensio	าร	
	EAN	∢ →		111	Usedlas				В	А	D	5
Article No.	4003773-	mm		Head	Handles	Ømm	Ømm	Ømm	mm	mm	mm	g
77 01 115	018568	115	* >	mirror polished	plastic coated	0.3 - 1.6	1.2	0.6	14.0	11.0	7.5	67
77 01 130	018575	130		minor polisileu	plastic coated	0.3 - 2.0	1.5	0.8	18.0	15.0	9.5	108
77 02 115	039334	115	* / 	mirror polished	with multi-component grips	0.3 - 1.6	1.2	0.6	14.0	11.0	7.5	80
77 02 130	039341	130	₩ ▶ ◀ 🖾 MM	mirror polished	with multi-component grips	0.3 - 2.0	1.5	0.8	18.0	15.0	9.5	124
77 11 115	018629	115	M∑	mirror polished	plastic coated	0.3 - 1.6	1.2	0.6	14.0	11.0	7.5	70
77 12 115	043768	115	* ► 1 ⊆ MM >	mirror polished	with multi-component grips	0.3 - 1.6	1.2	0.6	14.0	11.0	7.5	80
77 21 115	018650	115	* * * 53 MM	mirror poliched	plastic control	0.3 - 1.3	1.0		14.0	11.0	7.5	64
77 21 130	018667	130		mirror polished	plastic coated	0.3 - 1.6	1.3		18.0	14.0	9.5	110
77 22 115	043782	115	* / \]	mirror polished	with multi-component grips	0.3 - 1.3	1.0		14.0	11.0	7.0	80
77 22 130	040446	130	* /	mirror polished	with multi-component grips	0.3 - 2.0	1.5		18.0	15.0	9.0	124
77 32 115	044307	115	* /	mirror polished	with multi-component grips	0.3 - 1.3	1.0	0.5	14.0	11.0	7.5	80
77 42 115	039761	115		mirror poliched	with multi component arise	0.3 - 1.3	0.8		14.0	11.0	7.5	80
77 42 130	018773	130	aø 🔽 🥄 1⊆1) /VVV\	mirror polished	with multi-component grips	0.3 - 1.6	1.3		18.0	15.0	9.5	122
77 52 115	040750	115	* -	mirror polished	with multi-component grips	0.3 - 1.0	0.8	0.5	14.0	11.0	7.5	77
77 72 115	040958	115	* -	mirror polished	with multi-component grips	0.3 - 0.8			10.5	9.5	6.0	69

Electronics Diagonal Cutters ESD DIN ISO 9654

77

- > for fine cutting 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 offer effective rust protection — no circuit faults caused by peeling chrome from plated tools
- > cutting edges additionally induction hardened, cutting edge hardness approx. 62 HRC
- > with two-colour dual component grips, black/grey
- > High-grade special tool steel, forged, multi stage oil-hardened

77 02 115 ESD round head, with small bevel

77 42 115 ESD pointed head, without bevel

pointed, flat head, with small bevel

pointed mini-head, with small bevel

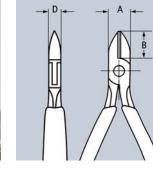
77 52 115 ESD

77 72 115 ESD

77 12 115 ESD round head, with bevel and lead catcher no uncontrolled loss of cut wire ends

77 22 115 ESD round head, without bevel

77 32 115 ESD pointed head, with small bevel



ESD pliers (electrostatic discharge)

Electrostatic energy is discharged through the handles in a gradual and controlled manner which 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















77 32 115 ESD ▲ 왕 ▶ □ □ MM



77 42 115 ESD ▲ 왕 ► ► 도 MM







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🙈 🕸 🣂

						Cut	ting capac	ties	D	mensio	ns	
Article No.	EAN 4003773-	∢ ► mm		Head	Handles	Ø mm	0 Ømm	Ømm	B mm	A mm	D mm	۲۵ g
77 02 115 ESD	025092	115	▲ * < < ⊂ MM	mirror polished	with multi-component grips	0.3 - 1.6	1.2	0.6	14.0	11.0	7.5	82
77 12 115 ESD	025108	115	◬।।≱◄⊆⊂₩₩≫	mirror polished	with multi-component grips	0.3 - 1.6	1.2	0.6	14.0	11.0	7.5	80
77 22 115 ESD	025115	115	▲ ¥ 🔼 🖾 WW	mirror polished	with multi-component grips	0.3 - 1.3	1.0		14.0	11.0	7.5	80
77 32 115 ESD	025122	115	▲ * < < ⊂ MM	mirror polished	with multi-component grips	0.3 - 1.3	1.0	0.5	14.0	11.0	7.0	79
77 42 115 ESD	031901	115	🛦 🕸 🔼 🖂 MM	mirror polished	with multi-component grips	0.3 - 1.3	0.8		14.0	11.0	7.0	78
77 52 115 ESD	025139	115	🏔 🕸 📂 🖾 MM	mirror polished	with multi-component grips	0.3 - 1.0	0.8	0.5	11.5	14.0	7.0	79
77 72 115 ESD	024330	115	▲ * < < ⊂ MM	mirror polished	with multi-component grips	0.3 - 0.8			10.5	9.5	6.0	69

77 02 120 H

Electronics Diagonal Cutters with inserted carbide metal cutting edges DIN ISO 9654

> for extreme demands on cutting pliers caused by hard or tough materials, e.g. piano, nickel, tungsten and diode wire, such as those used more frequently in the electronics and aerospace industries

77

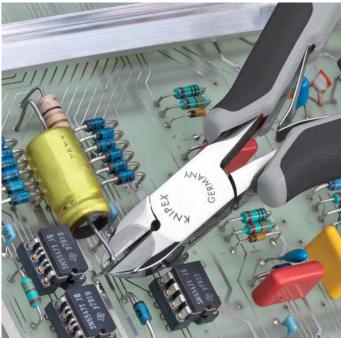
Н

- > always the right cutting tool, even with the hardest material
- > precision carbide metal cutting edges soldered into forged blanks
- > sturdy, zero-backlash box joint
- > hardness of the carbide cutting edges 80 83 HRC
- > pliers with carbide metal cutting edges have a substantially longer service life than such with conventional cutting edges
- > constantly reliable cutting results due to the avoidance of cutter deformations
- > high cost saving due to longer service life of the pliers

77 02 120 H / 77 02 135 H / ESD round head, with bevel

77 32 120 H / ESD pointed head with chamfer, with smal bevel







							Cutting	capacities		Di	mensic	ns	
	EAN	>				\bullet				В	A	D	5
Article No.	4003773-	mm		Head	Handles	Ømm	Ømm	Ømm	Ømm	mm	mm	mm	g
77 02 120 H	075783		₩ ▶ ◀ ⊑ MM	mirror polisned	with multi-component	2.0	1.4	1.0	0.6	14	11	7.5	85
77 02 120 H ESD	075813	120	MM 🗁 🗲 🕸 🛕		grips	2.0	1.4	1.0	0.6	14	11	7.5	85
77 02 135 H	075806	135	* * 1 🖾 MM		with multi-component	2.2	1.6	1.2	0.8	18	15	9.5	115
77 02 135 H ESD	075837	135	AM 🗁 🎮 🕸 🔬	minor polisned	grips	2.2	1.6	1.2	0.8	18	15	9.5	115
77 32 120 H	075790	120	* 📂 🦳 🕼	mirror polished	with multi-component	1.6	1.0	0.6	0.2	14	11	7.5	80
77 32 120 H ESD	075820	120	🛦 🕸 🧲 🥆 🖾 MM		grips	1.6	1.0	0.6	0.2	14	11	7	80

Electronics End Cutting Nippers DIN ISO 5746

64

- > precision pliers for ultra 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 offer effective rust protection – no circuit faults caused by peeling chrome from plated tools
- > cutting edges additionally induction hardened, cutting edge hardness at least 56 HRC
- > High-grade special tool steel, forged, multi stage oil-hardened

Style 0

End Cutter, with bevel

Style 2 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, $\alpha = 27^{\circ}$

Style 5 Oblique End Cutter, short head, without bevel, for flush cutting, $\alpha = 27^{\circ}$



Style 7 Oblique End Cutter, mini-blade with small bevel, head with recess, $\alpha = 35^{\circ}$ Style 1 / 64 11 115

End Cutter, without bevel

Style 1 / 64 12 115 / ESD End Cutter, with smal bevel





🛦 🕸 🖌 90° 🦰 🗔 MM

64 12 115 ESD

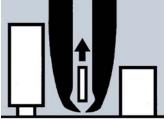
64 32 120

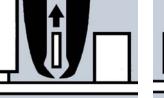
64 52 115

& <u>∕2</u>7°



🕸 <u>∡</u>27° 🦰 🖾 MM

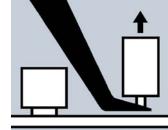




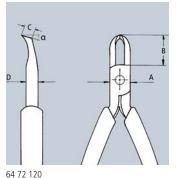
64 22 115



64 72 120





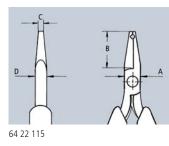


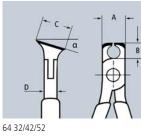
🕸 ∡15° 🦰 🖂 MM

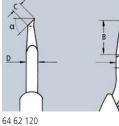


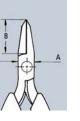
64 42 115

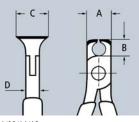












64 01/02/11/12

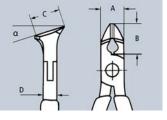
							Cut	ting capac	ities		Dime	nsions		
Article No.	EAN 4003773-	∢ → mm		Style	Head	Handles	Ø mm	Ø mm	Ø mm	A mm	B mm	D mm	C mm	ے و
64 01 115	017745	115	\$≹ <u>∡90°</u> ▶◀ ⊑∵ MM	0	mirror polished	plastic coated	2.0	1.0	0.6	11.0	6.0	7.5	16.0	70
64 02 115	035343	115	\$% ∡90° ▶ ◀ ⊆ੋ MM	0	mirror polished	with multi- component grips	2.0	1.0	0.6	11.0	6.0	7.5	16.0	94
64 11 115	017769	115	\$≹ <u>∡</u> 90° / ⊂ ∭ MM	1	mirror polished	plastic coated	1.4	0.8		11.0	6.0	7.0	16.0	74
64 12 115	040743	115	\$≹ ∡ 90° 🥕 ि [] MM	1	mirror polished	with multi- component grips	2.0	0.8	0.5	11.0	6.0	7.0	16.0	91
64 12 115 ESD	024323	115	▲ ≉∡≌°° ╱ ⊂ T MM	1	mirror polished	with multi- component grips	2.0	0.8	0.5	11.0	6.0	7.0	16.0	94
64 22 115	017806	115	\$≹ ∡90° 🥕 🔁 MM	2	mirror polished	with multi- component grips	0.8			10.0	20.0	6.0	3.0	6
64 32 120	017820	120	\$≹∡15° 📂 🖾 MM	3	mirror polished	with multi- component grips	1.5	1.0	0.5	11.0	10.0	7.0	17.0	92
64 32 120 ESD	025078	120	``` \$\$ ∡15° / \ ⊡` MM	3	mirror polished	with multi- component grips	1.5	1.0	0.5	11.0	10.0	7.0	17.0	92
64 42 115	017844	115	\$≹ ∡27° 🥕 🚍 MM	4	mirror polished	with multi- component grips	1.5	1.0	0.5	10.5	10.0	7.0	12.0	69
64 52 115	040439	115	& ∡27° / ⊡ MM	5	mirror polished	with multi- component grips	1.3			10.5	10.0	7.0	12.0	69
64 62 120	046998	120	\$≹ ∡65° 🥕 🤁 KM	6	mirror polished	with multi- component grips	0.6			9.5	18.5	6.0	5.0	7(
64 62 120 ESD	025085	120	▲ ℁ ∡65° ┍ ヽ ⊑ WM	6	mirror polished	with multi- component grips	0.6			9.5	18.5	6.0	5.0	7(
64 72 120	017882	120	\$& ∡35° ~ \ ⊑J MM	7	mirror polished	with multi- component grips	1.5			12.0	19.5	7.0	5.0	9!

62 12

Electronics Oblique Cutting Nipper DIN ISO 9654

- > with cutting edges for soft and medium hard wire without bevel, for flush cutting
- > cutting edges additionally induction hardened, cutting edge hardness approx. 58 HRC
- > low-friction double spring for gentle and even opening
- > sturdy, zero backlash box joint
- > the polish together with a fine film of oil offer effective rust protection — no circuit faults caused by peeling chrome from plated tools
- > High-grade special tool steel, forged, multi stage oil-hardened





						Cutting c	apacities		Dime	nsions		
	EAN	∢ —▶				\bullet		A	В	D	С	52
Article No.	4003773-	mm		Head	Handles	Ømm	Ømm	mm	mm	mm	mm	g
62 12 120	048008	120	\$\$\$ ∡15° 🔽 🖾 MM	polished	with multi-component grips	0.3 - 1.0	0.7	11	10	7.5	17	93

Precision Electronics Gripping Pliers DIN ISO 9655

- 34
- > for very precise assembly work, e.g. in electronics and fine mechanics
- > for gripping, holding and bending
- > smoothly ground gripping surfaces, edges finely rounded
- > approx. 20% lighter than conventional electronics pliers
- > bolted joint and 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 optimised multi-component handles
- > forged from chrome vanadium ball-bearing steel

Style 1 flat, wide jaws

Style 2

half-round jaws

Style 3 round, pointed jaws

Style 4

flat, wide jaws; with precision laser cut cross-shaping

Style 5 half-round jaws; with precision laser cut cross-shaping







34 12 130

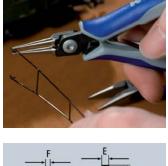


34 22 130 ESD ▲ 黎 ⊖ < 1 130 ESD





Cross-shaping: precision laser cut for a secure grip in ultra fine mounting work



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D



34 32 130

34 42 130 ██ ₩



34 32 130 ESD ▲ 黎 8 ◯ ■ 🖼 MM



34 42 130 ESD



³⁴ 52 130 ⊖ ∞∞ 🛒 MM

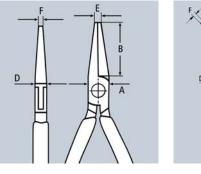


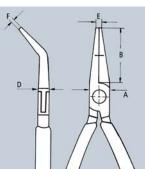
34 52 130 ESD ▲ 黎 ⊖ ⋘ ¶¶ MM

									Di	mensio	ns		
	EAN	∢ —▶						В	A	D	Е	F	52
Article No.	4003773-	mm		Style	Pliers	Head	Handles	mm	mm	mm	mm	mm	g
34 12 130	061458	135		1	burnished	polished	with multi-component grips	21.9	11.2	6.5	1.4	3.5	61
34 12 130 ESD	061632	135	▲ * == <= * * * *	1	Dulliisileu	polisileu	with multi-component grips	21.9	11.2	6.5	1.4	3.5	62
34 22 130	061472	135	#0]]] //////////////////////////////////	2	burnished	polished	with multi-component grips	22.7	11.2	6.5	1.6	1.6	61
34 22 130 ESD	061656	135	▲।≉⊖⊂]≣™	2	bullislieu	polistieu	with multi-component grips	22.7	11.2	6.5	1.6	1.6	65
34 32 130	061496	135	\$\$8 C \$ \$ MM	3	burnished	polished	with multi-component grips	23.7	11.2	6.5	2.0	1.0	59
34 32 130 ESD	061670	135	🛦 🕸 8 🗂 💕 MM	3	bullislieu	polistieu	with multi-component grips	23.7	11.2	6.5	2.0	1.0	62
34 42 130	080282	135	🕸 🔙 🚳 🛐 MM	4	burnished	polished	with multi component aving	21.9	11.2	6.5	1.4	3.5	61
34 42 130 ESD	080299	135	🛦 🕸 💳 🚳 🖺 MM	4	buillistied	polished	with multi-component grips	21.9	11.2	6.5	1.4	3.5	61
34 52 130	080312	135	&⊖ ∞ £ 5MM	5	hurniched	polished	with multi-component grips	22.7	11.2	6.5	1.6	1.6	61
34 52 130 ESD	080305	135	🛦 🕸 🖯 🖾 🛣 🖓 🖓	5	burnished	polished	with multi-component grips	22.7	11.2	6.5	1.6	1.6	61

Electronics Pliers

- > precision pliers for fine assembly work, e g. in electronics and fine mechanics
- > for gripping, holding and bending
- > sturdy, zero backlash box joint
- > smooth ground gripping surfaces
- > edges carefully deburred
- > low-friction double spring for gentle and even opening
- > the polish or mirror polish (only finish 2) together with a fine film of oil offer effective rust protection – no circuit faults caused by peeling chrome from plated tools
- > Special tool steel, forged, oil-hardened







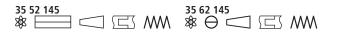




35 32 115 8 <☐ ☐ MM











^{35 82 145} ⊗ ∠ 5° ⊖ ∠ ∠ ∞

							Di	mensio	ns		
	EAN	∢ →				В	А	D	Е	F	52
Article No.	4003773-	mm		Head	Handles	mm	mm	mm	mm	mm	g
35 11 115	016694	115		mirror polished	plastic coated	22.5	9.5	6.5	2.0	4.0	61
35 12 115	035107	115		mirror polished	with multi-component grips	22.5	9.5	6.5	2.0	4.0	72
35 21 115	016724	115	₩⊖⊂]⊑/M	mirror polished	plastic coated	22.5	9.5	6.5	2.0	1.5	59
35 22 115	035114	115	₩0⊂]⊑/M	mirror polished	with multi-component grips	22.5	9.5	6.5	2.0	1.5	73
35 31 115	016762	115	₩8⊂J⊑JMM	mirror polished	plastic coated	22.5	9.5	6.5	2.0	1.0	58
35 32 115	035121	115	₩8⊂J⊑JMM	mirror polished	with multi-component grips	22.5	9.5	6.5	2.0	1.0	72
35 42 115	040736	115	\$\$≰45°⊖⊂]⊡MM	mirror polished	with multi-component grips	22.5	9.5	6.5	2.0	1.5	74
35 52 145	039389	145	*=M	mirror polished	with multi-component grips	40.0	12.0	7.5	1.5	4.0	102
35 62 145	039556	145	₩0⊂]⊑JMM	mirror polished	with multi-component grips	40.0	12.0	7.5	2.5	1.5	103
35 72 145	043607	145	₩8⊂J⊑JMM	mirror polished	with multi-component grips	40.0	12.0	7.5	2.5	1.3	98
35 82 145	039396	145	\$\$≰45°⊖⊂]⊡MM	mirror polished	with multi-component grips	35.0	12.0	7.5	2.5	1.0	102

Electronics Pliers ESD DIN ISO 9655

35

35 12 115 ESD

35 22 115 ESD

- the second

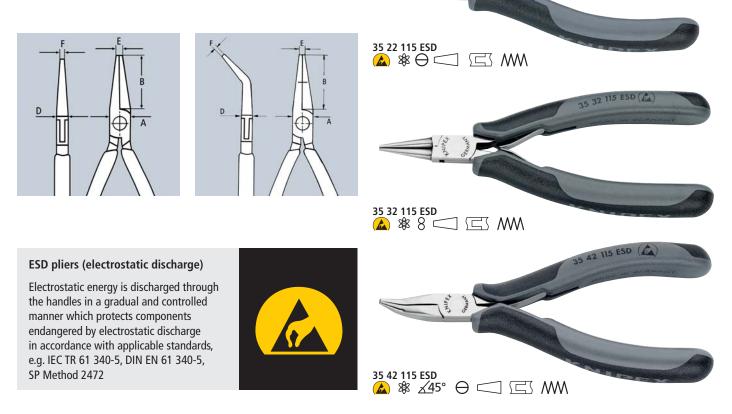
35 12 115 ESD

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(CA)

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- > precision pliers for fine assembly work, e g. in electronics and fine mechanics
- > for gripping, holding and bending
- > electrically discharging handles dissipative
- > sturdy, zero backlash box joint
- > smooth ground gripping surfaces
- > edges carefully deburred
- > low-friction double spring for gentle and even opening
- > the mirror polish together with a fine film of oil offer effective rust protection — no circuit faults caused by peeling chrome from plated tools
- > with two-colour dual component grips, black/grey
- > Special tool steel, forged, oil-hardened



							Di	mensio	ns		
	EAN	∢ →				В	А	D	E	F	52
Article No.	4003773-	mm		Head	Handles	mm	mm	mm	mm	mm	g
35 12 115 ESD	024835	115	▲*== </td <td>mirror polished</td> <td>with multi-component grips</td> <td>22.5</td> <td>9.5</td> <td>6.5</td> <td>2.0</td> <td>4.0</td> <td>74</td>	mirror polished	with multi-component grips	22.5	9.5	6.5	2.0	4.0	74
35 22 115 ESD	024842	115	▲≉⊖⊂⊐⊑™	mirror polished	with multi-component grips	22.5	9.5	6.5	2.0	1.5	74
35 32 115 ESD	024859	115	▲\$8<⊂]⊑™MM	mirror polished	with multi-component grips	22.5	9.5	6.5	2.0	1.0	70
35 42 115 ESD	024866	115	▲≉∡₄₅°⊖⊂⊐⊡™M	mirror polished	with multi-component grips	22.5	9.5	6.5	2.0	1.5	74

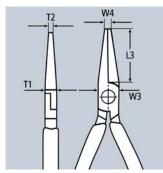
Electronics Mounting Pliers

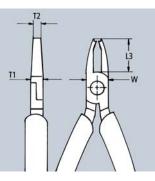
- 36
- > precision pliers for very fine assembly and repair work in electronics
- > for bending and cutting off wire ends on components
- > sturdy, zero backlash box joint smooth ground gripping surfaces edges carefully deburred
- > low-friction double spring for gentle and even opening
- > the mirror polish together with a fine film of oil offer effective rust protection – no circuit faults caused by peeling chrome from plated tools
- > High-grade special tool steel, forged, oil-hardened













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36 32 125
 ⊆ MM
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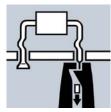
36 12 130 ⊆ MM



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



36 22 125 to bend and cut wire at 1 6 mm length below the board



36 32 125 to crunch and cut wire at 1.6 mm length below the board

						Cutting capacities		Dii	mensio	ns		
	EAN	∢ —▶				\bullet	L3	W	T1	W1	T2	52
Article No.	4003773-	mm		Head	Handles	Ømm	mm	mm	mm	mm	mm	g
36 12 130	016861	130	* 🖾 MM	mirror polished	with multi-component grips		23.0	12.0	9.5	5.5	6.0	94
36 22 125	046967	125	\$%⊡™	mirror polished	with multi-component grips	1.2	18.0	11.5	7.5	7.5	2.6	94
36 32 125	016885	125	** [] MM	mirror polished	with multi-component grips	1.0	18.0	11.5	7.5	7.5	4.0	108

Electronics Pliers Sets

for working on electronic components

00 20 16

7 parts, contains 6 electronics pliers and one pair of precision tweezers; case made of hard-wearing polyester fabric, pliers are held by elastic band, zippered

00 20 16 P

6 parts, contains 6 precision electronics pliers; case made of hardwearing polyester fabric, pliers are held by elastic band, zippered

00 20 16 P ESD

6 parts, contains 6 ESD precision electronics pliers, electrically discharging version; case made of hard-wearing polyester fabric, pliers are held by elastic band, zippered

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, zippered

00 20 18

8 parts, contains 2 electronics pliers and 6 electronics screwdrivers; practical storage box, shock-resistant plastic, with foam insert

00 20 18 ESD

8 parts, contains 2 electronics pliers and 6 electronics screwdrivers, ESD electrically discharging version; practical storage box, shock-resistant plastic, with foam insert



00



00 20 16 P ESD



00 20 17

00 20 16 P



00 20 18 ESD

	EAN		5
Article No.	4003773-	Contents	g
00 20 16	022619	35 12 115 / 35 22 115 / 35 32 115 / 64 32 120 / 77 02 115 / 77 42 115 / 92 34 36	720
00 20 16 P	063223	34 12 130 / 34 22 130 / 34 32 130 / 79 02 120 / 79 02 120 / 79 02 125 / 79 42 125	575
00 20 16 P ESD	063230	34 12 130 ESD / 34 22 130 ESD / 34 32 130 ESD / 79 02 120 ESD / 79 02 125 ESD / 79 42 125 ESD	585
00 20 17	031222	35 12 115 ESD / 35 22 115 ESD / 35 42 115 ESD / 64 32 120 ESD / 77 02 115 ESD / 77 32 115 ESD	695
00 20 18	033073	35 22 115 / 77 02 115 / screwdrivers 0.4 x 2.5 / 0.5 x 3.0 / 0.6 x 3.5 / 0.8 x 4.0 / PH0 / PH1	460
00 20 18 ESD	051848	35 22 115 ESD / 77 02 115 ESD / screwdrivers 0.4 x 2.5 / 0.5 x 3.0 / 0.6 x 3.5 / 0.8 x 4.0 / PH0 / PH1	465

PRECISION TWEEZERS

Precision Tweezers

92

- > smooth gripping surfaces
- > non-reflective matt finish

92 02 53

for SMD-technology^{*}; angled tips, width approx. 1 mm; gripping surfaces matt finish for optimum grip; Chrome nickel steel: stainless, anti-magnetic (18/10), very popular electronics quality

92 02 54

for SMD-technology*; angled tips, width approx. 1 mm; with integrated profile for reliable gripping of cylindrical components of 0.6 mm dia.; gripping surfaces matt finish for optimum grip; Chrome nickel steel: stainless, anti-magnetic (18/10), very popular electronics quality

92 02 55

gripping jaws 3.5 mm wide, for cylindrical components of 0.8 mm dia.; serrated handles; stainless, anti-magnetic and acid-proof

92 12 52

angled tips; extra strong tips; stainless, anti-magnetic



	EAN	∢ →			52
Article No.	4003773-	mm		Finish	g
92 02 53	054603	120	\$\$ <u>∡4</u> 5° ⊂	stainless, anti-magnetic	16
92 02 54	054610	120	\$\$ <u>∡</u> 45° ⊂	stainless, anti-magnetic	15
92 02 55	054627	115	\$	stainless, anti-magnetic, acid-proof	16
92 12 52	054658	120	& <u>⊀</u> 85° ⊂	stainless, anti-magnetic	20

* SMD-Technology: technique for soldering surface mounted components on printed circuit boards without using holes

Precision Tweezers pointed shape 92		97.22.04 stationer and compared
 > for fine mounting work > straight pattern > smooth gripping surfaces > particularly slim tips 	92 22 04 AB	
 92 22 04 non-reflective matt finish; gripping surfaces matt finish for optimum grip; Chrome nickel steel: stainless, anti-magnetic (18/10), very popular electronics quality 92 22 06 non-reflective matt finish; gripping surfaces matt finish for optimum grip; Chrome nickel steel: stainless, anti-magnetic (18/10), very popular electronics quality 	92 22 06 X	92 22 07 彩
 92 22 07 non-reflective matt finish; Chrome nickel steel; stainless, anti-magnetic and acid-proof 92 23 05 Titanium; electrically conductive; lightweight; non-reflective matt finish; stainless, anti-magnetic and acid-proof 92 24 01 Spring steel; mirror finish nickel plated and polished 	92 23 05 X C	92 24 01 &

Article No.	EAN 4003773-	∢ ► mm		Finish	۲ <mark>۵</mark>
92 22 04	054665	130	\$8	stainless, anti-magnetic	20
92 22 06	054672	120	\$\$	stainless, anti-magnetic	15
92 22 07	054689	115	\$8	stainless, anti-magnetic, acid-proof	12
92 23 05	054726	120	\$8	Titanium, anti-magnetic, acid-proof, stainless	10
92 24 01	054733	120	\$8	nickel plated	15

PRECISION TWEEZERS

Precision Tweezers needle-pointed shape	92		
> for ultra fine mounting work > extra fine tips > smooth gripping surfaces		92 22 12 X	92.22.12 storetes and required
 stainless, anti-magnetic non-reflective matt finish 			
92 22 12 straight pattern	92 32 29 sickle-shaped tips; Chrome nickel steel:	92 32 29 8 x45°	92 34 28 A 45°
92 22 13 American shape, solid; straight pattern; stainless, anti-magnetic and acid-proof	stainless, anti-magnetic (18/10), very popular electronics quality; gripping surfaces matt finish for optimum grip		
	92 34 28 angled tips	92 22 13 \$	

	EAN	∢ →			52
Article No.	4003773-	mm		Finish	g
92 22 12	054696	105	X\$K []	stainless, anti-magnetic	13
92 22 13	054702	135	X\$K []	stainless, anti-magnetic, acid-proof	21
92 32 29	054818	120	& <u>⊀</u> 45° ⊂	stainless, anti-magnetic	16
92 34 28	054825	105	\$\$ <u>∡4</u> 5° ⊂	stainless, anti-magnetic	12

Precision Tweezers with centering pin pointed shape		92	0 0	NIR OF
 > universally applicable > narrow tips > gripping surfaces with fine trans 	verse serration		92 22 35 இ ====================================	1
 > serrated handles 92 22 35 straight pattern; non-reflective matt 	92 34 36 angled tips; nickel plated		92 24 34 இβ আ∭	92 34 36 ∡45° আ∭
finish; stainless, anti-magnetic and acid-proof	92 34 37 angled tips; black non-reflective			
92 24 34 straight pattern; nickel plated	lacquered		92 34 37 <u>⊀</u> 45° আ∭	

Article No.	EAN 4003773-	∢— ► mm		Finish	۲ <u>۲</u> g
92 22 35	054719	155	888	stainless, anti-magnetic, acid-proof	22
92 24 34	054740	155	888	nickel plated	21
92 34 36	054832	155	\$\$ <u>∡</u> 45° আ∏	nickel plated	23
92 34 37	054849	155	\$\$ <u>∡</u> 45° আ∏	black lacquered	21

Precision Tweezers round slim shape	92			
 > round tips, approx. 2 mm wide > smooth gripping surfaces > stainless, anti-magnetic and acid-proof > Chrome nickel steel, stainless, anti-magnetic, acid-proof 		92 52 23 🕸 🦳	92 52 23 &	92 52 23 A C

	EAN	∢ —▶			52
Article No.	4003773-	mm		Finish	g
92 52 23	054894	120	888	stainless, anti-magnetic, acid-proof	17

PRECISION TWEEZERS

Precision Tweezers	92		9244 (Sart)
> universally applicable > straight pattern > wide, round tips		92 44 42 AB CCCCC	
 > serrated handles 92 44 42 jewellers' tweezers; round tips, approx. 2 mm wide; gripping jaws with fine crosswise serration (cross-hatched); 	92 70 46 round tips, approx. 3.5 mm wide; gripping surfaces with fine transverse serration; black non-reflective lacquered	92 64 43 8 IIII	92 64 44 8 IIII
nickel plated 92 64 43 round tips, approx. 3 mm wide; gripping surfaces with fine transverse serration; nickel plated	92 72 45 round tips, approx. 3.5 mm wide; serrated gripping surfaces; nonreflective matt finish; stainless, anti-magnetic and acid-proof	92 70 46	92 72 45
92 64 44 round tips, approx. 3.5 mm wide; gripping surfaces with fine transverse serration; nickel plated		× 1	× 19

	EAN	∢ —▶			52
Article No.	4003773-	mm		Finish	g
92 44 42	054887	140	X\$K 🗙 🕅	nickel plated	21
92 64 43	054917	120	\$8	nickel plated	17
92 64 44	054924	145	\$8	nickel plated	23
92 70 46	055075	145	\$8 1	black lacquered	26
92 72 45	054962	145	*	stainless, anti-magnetic, acid-proof	27

92

Plastic Tweezers

> trapezoidal tips, approx. 3.5 mm wide

- > knurled gripping surfaces
- > serrated handles
- > tweezers body: solid plastic, temperature-resistant up to 130°C



	EAN	∢ —▶			52
Article No.	4003773-	mm		Finish	g
92 69 84	054948	130	888	plastic	19

92

Precision	Tweezers
rectangular bli	int

> mounting tweezers

- > rectangular tips, approx. 0.9 mm wide
- > gripping surfaces with fine transverse serration
- > nickel plated
- > Spring steel, high-strength

92 84 18 🕸 🎹

	EAN	-→			5
Article No.	4003773-	mm		Finish	g
92 84 18	054986	125	\$8	nickel plated	19

92.84.18 KNIPEX

PRECISION TWEEZERS

Cross-Over Tweezers

> for holding small parts without finger pressure

- > for efficient clamping
- > nickel plated
- > Spring steel, high-strength

92 94 91

for ultra fine mounting work; extra fine tips; straight pattern; gripping surfaces matt finish for optimum grip

92 27 62

straight pattern; gripping surfaces with fine transverse serration

92 37 64 angled tips; gripping surfaces with

fine transverse serration 92 67 63 straight pattern; serrated gripping

surfaces

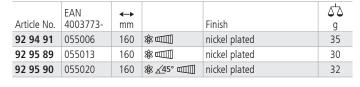


\$8 1

92











£1000V Ⅲ

Article No.	EAN 4003773-	∢→ mm		Finish	۵'۵ g
92 27 61	054757	130	≙ 1000 V 	with dipped insulation	32
92 27 62	054764	150	A 1000 V ▥▥	with dipped insulation	35
92 37 64	054856	150	A 1000 V ∡45° আ∭	with dipped insulation	34
92 67 63	054931	145	£ 1000 V আ∭	with dipped insulation	43

PRECISION TWEEZERS

Precision Tweezers ESD

92

- > Chrome nickel steel: stainless, anti-magnetic (18/10), very popular electronics quality
- > ESD coating: non-reflective black, with a surface resistance of approx. $10^5 \mbox{ Ohm}$
- > tips non-reflective brushed
- > gripping surfaces matt finish for optimum grip
- > Chrome nickel steel, stainless, anti-magnetic

92 08 78 ESD

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

92 08 79 ESD shaped to grip horizontal cylindrical components of 1.0 mm dia.; smooth gripping surfaces; serrated handles

92 28 69 ESD straight pattern; strong tip; smooth gripping surfaces

92 28 70 ESD straight pattern; fine tip; smooth gripping surfaces

92 28 71 ESD needle-pointed tips; straight pattern; smooth gripping surfaces

92 28 72 ESD American shape, solid; long tips; straight pattern; smooth gripping surfaces

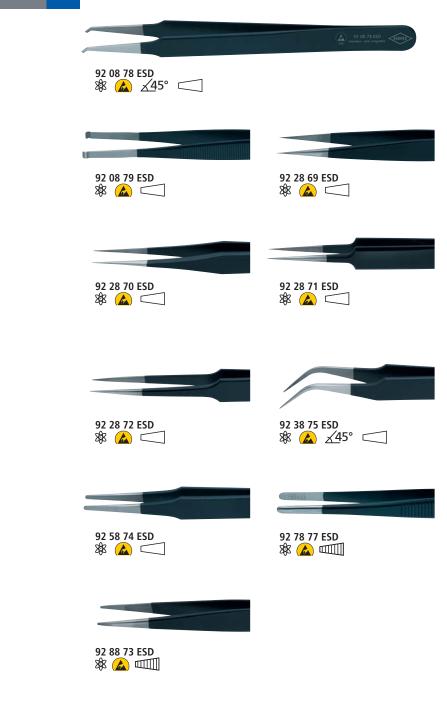
92 38 75 ESD sickle-shaped tips; smooth gripping surfaces

92 58 74 ESD round tips, approx. 2 mm wide; straight pattern; smooth gripping surfaces

92 78 77 ESD round tips, approx. 3.5 mm wide; straight pattern; serrated gripping surfaces; serrated handles

92 88 73 ESD

rectangular tips, approx. 0.9 mm wide; gripping surfaces with fine transverse serration



	EAN	4-			52
Article No.	4003773-	mm		Finish	g
92 08 78 ESD	054634	120	\$\$ 🛕 <u>∡</u> 45° ⊂	stainless, anti-magnetic, electrically dissipative	16
92 08 79 ESD	054641	120	88 🛕 🥽	stainless, anti-magnetic, electrically dissipative	16
92 28 69 ESD	054771	130	88 🛕 🥽	stainless, anti-magnetic, electrically dissipative	20
92 28 70 ESD	054788	110	೫ 🛦 <	stainless, anti-magnetic, electrically dissipative	13
92 28 71 ESD	054795	110	88 🛕 🥽	stainless, anti-magnetic, electrically dissipative	14
92 28 72 ESD	054801	135	88 🛦 🤇	stainless, anti-magnetic, electrically dissipative	22
92 38 75 ESD	054863	120	& <u>∡4</u> 5° ⊂	stainless, anti-magnetic, electrically dissipative	17
92 58 74 ESD	054900	120	\$ ▲ <	stainless, anti-magnetic, electrically dissipative	19
92 78 77 ESD	054979	145	\$ 🛦 💷	stainless, anti-magnetic, electrically dissipative	27
92 88 73 ESD	054993	130	\$8 🛦 💷	stainless, anti-magnetic, electrically dissipative	20

* SMD-Technology: technique for soldering surface mounted components on printed circuit boards without using holes

Pliers with tether attachment point for mounting a fall protection

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Pliers range with tether attachment point for mounting a fall protection



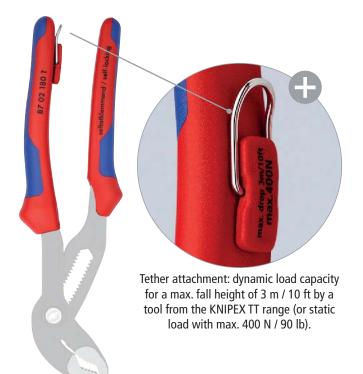


The tether attachment point for the range with multi-component handles

Tools can fall down when used on cherry pickers, scaffolding and ladders and when used by industrial climbers working with wire rope hoists.

KNIPEX offers a range of pliers with reliable protection to prevent them falling down.

An extremely stable tether attachment that is permanently welded to the handle is provided on the inside of the handle for attaching a tether. It enables equipment to be secured and put down quickly, either directly using the rope (paracord) strap or an appropriately small snap hook placed on a lanyard. In case of doubt, a rope (paracord) adapter can be used to adapt it to any existing tool fall arrest system.





PLIERS WITH TETHER ATTACHMENT POINT

	A	Description	Dama
	Article No. 02 02 225 T	Description High Leverage Combination Pliers,	Page 29
	02 02 225 1	with tether attachment point for a tool tether DIN ISO 5746	29
~	08 22 145 T	Needle-Nose Combination Pliers, with tether attachment point for a tool tether DIN ISO 5746	31
	09 02 240 T	Lineman's Pliers, with tether attachment point for a tool tether, American style DIN ISO 5746	33
	09 12 240 T	ASME B107.20	33
	13 05 160 T	Electricians' Pliers, with tether attachment point for a tool tether	36
~~	13 82 200 T	Pliers for Electrical Installation, with tether attachment point for a tool tether	34
	26 12 200 T	Snipe Nose Side Cutting Pliers, (Stork Beak Pliers), with tether attachment point for a tool tether DIN ISO 5745	39
	26 15 200 T		39
	26 22 200 T		39
~~~	26 25 200 T		39
	70 05 160 T	Diagonal Cutters, with tether attachment point for a tool tether DIN ISO 5749	95
	70 05 180 T		94
•	71 02 200 T	KNIPEX CoBolt [®] , Compact Bolt Cutters, with tether attachment point for a tool tether DIN ISO 5743	102
*	71 22 200 T		103
	71 32 200 T		103

Article No.	Description	Page
73 05 160 T	KNIPEX X-Cut [®] , Compact Diagonal Cutters, with tether attachment point for a tool tether	97
74 02 200 T	High Leverage Diagonal Cutters, with tether attachment point for a tool tether DIN ISO 5746	98
74 02 250 T	-	98
74 22 200 T		98
74 22 250 T		98
86 05 180 T	Pliers Wrenches, pliers and a wrench in a single tool, with tether attachment point for a tool tether DIN ISO 5743	112
86 05 250 T		112
87 02 180 T	KNIPEX Cobra®, Hightech Water Pump Pliers, with tether attachment point for a tool tether DIN ISO 8976	117
87 02 250 T		117
87 02 300 T		117
88 02 250 T	KNIPEX Alligator®, Water Pump P iers, with tether attachment point for a tool tether DIN ISO 8976	123
88 02 300 T		123
95 12 165 T	Cable Shears, with tether attachment point for a tool tether	154
95 62 190 T	Wire Rope Cutters, forged, with tether attachment point for a tool tether	162
	<ul> <li>73 05 160 T</li> <li>74 02 200 T</li> <li>74 02 250 T</li> <li>74 22 200 T</li> <li>74 22 250 T</li> <li>74 22 250 T</li> <li>86 05 250 T</li> <li>86 05 250 T</li> <li>87 02 180 T</li> <li>87 02 180 T</li> <li>87 02 250 T</li> <li>88 02 250 T</li> <li>88 02 250 T</li> <li>88 02 250 T</li> </ul>	73 05 160 TKNIPEX X-Cut®, Compact Diagonal Cutters, with tether attachment point for a tool tether74 02 200 THigh Leverage Diagonal Cutters, with tether attachment point for a tool tether74 02 250 THigh Leverage Diagonal Cutters, with tether attachment point for a tool tether74 02 250 TPiers Wrenches, piers and a wrench in a single tool, with tether attachment point for a tool tether74 22 200 TPiers Wrenches, piers and a wrench in a single tool, with tether attachment point for a tool tether86 05 180 TPiers Wrenches, piers and a wrench in a single tool, with tether attachment point for a tool tether87 02 180 TKNIPEX Cobra®, Hightech Water Pump Piers, with tether attachment point for a tool tether87 02 250 TKNIPEX Alligator®, Water Pump Piers, with tether attachment point for a tool tether88 02 250 TKNIPEX Alligator®, Water Pump Piers, with tether attachment point for a tool tether95 12 165 TCable Shears, with tether attachment point for a tool tether95 62 190 TWire Rope Cutters, forged, with tether attachment point for a tool tether

Tool Assortment and Cases

bible

KNIPEX ®

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260
260
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### TOOL ASSORTMENT

#### Tool Roll 11 parts

#### **00** 19

- > for telecommunications and electrical engineers
- > tool roll made of hard-wearing polyester fabric
- > with practical, adjustable quick release fastener
- > contains eight pliers and three scewdrivers
- > pliers with chrome plated heads and two-colour dual component handles
- > screwdrivers VDE tested according to DIN EN/IEC 60900 1000V



Article No.	EAN 4003773-				Quantity	۵'۵ g
00 19 41	024729		Tool Roll 11	parts		1620
			03 05 160	Combination Pliers	1	
		٨٨٨	11 05 160	Insulation Strippers	1	
		$\Theta \blacksquare \blacksquare$	25 05 160	Snipe Nose Side Cutting Pliers (Radio Pliers)	1	
			30 15 160		1	
		8	30 35 160	Long Nose Pliers	1	
			31 15 160	Flat Nose Pliers (Needle-Nose Pliers)	1	
			67 05 140	High Leverage End Cutting Nipper	1	
		-	70 05 140	Diagonal Cutter	1	
			98 20 25		1	
		- A 1000 V 🖄 🗲 🗢	98 20 40	Screwdriver for slotted screws	1	
		£ 1000 V 🖄 🚭 🗘	98 24 01	Screwdriver for cross recessed screws, Phillips®	1	

# KNIPEX Minis in belt pouch 2 parts

- **00** 20
- > made of hard-wearing polyester fabric
- > with hook and loop fastener
- > with elastic side holder for small flash lamp, pen or suchlike
- > with practical belt loop
- > dimensions (W x H x D): 70 x 170 x 50 mm





00 20 72 V01

Article No.	EAN 4003773-				Quantity	۵'۵ g
00 20 72 V01	070832		KNIPEX Mini	s in belt pouch 2 parts		350
		SE	86 03 150	Mini Pliers Wrench, pliers and a wrench in a single tool	1	
			87 01 125	KNIPEX Cobra®, Hightech Water Pump Pliers	1	
00 20 72 V02	075851		KNIPEX Mini	s in belt pouch 2 parts		390
			74 01 160	High Leverage Diagonal Cutter	1	
			87 01 150	KNIPEX Cobra®, Hightech Water Pump Pliers	1	
00 19 72 LE	070191	Belt Pouch				

# TOOL ASSORTMENT

#### Pliers Sets in a foam tray

- > in a foam tray for workbenches and tool trolleys
- > clearly organised storage of tools
- > precisely-sized recesses for holding the pliers
- > foam tray dimensions (W x H x D): 335 x 165 x 33 mm
- > material: two colour, closed pore foam

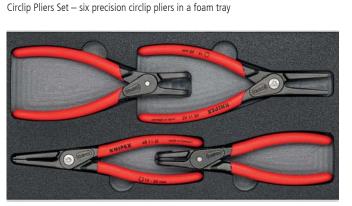


**00 20 01 V01** Pliers Set "Basic" – four pliers in a foam tray

**00** 20



**00 20 01 V03** Water Pump Pliers Set – three pliers in a foam tray



#### 00 20 01 V09

00 20 01 V02

Circlip Pliers Set "SRZ II" - four precision circlip pliers in a foam tray



Article No.	EAN 4003773-				Quantity	۵ ^۲ ۵ g
00 20 01 V01	069645		Pliers Set "B	asic", four pliers in a foam tray		1095
			03 05 180	Combination Pliers	1	
		$\Theta \blacksquare \blacksquare \blacksquare$	26 15 200	Snipe Nose Side Cutting Pliers (Stork Beak Pliers)	1	
			74 05 180	High Leverage Diagonal Cutter	1	
			87 01 250	KNIPEX Cobra®, Hightech Water Pump Pliers	1	
00 20 01 V02	069652		Circlip Pliers	Set, six precision circlip pliers in a foam tray		915
		() <b>•</b>	48 11 J1		1	
		on	48 11 J2	Precision Circlip Pliers, to assemble internal circlips into bores	1	
		Ů <b>₽≦ </b> ∡90°	48 21 J21		1	
		A	49 11 A1		1	
		ŐEIM	49 11 A2	Precision Circlip Pliers, to assemble external circlips on shafts	1	
		Ů <b>≌≦</b> MM <u>∡</u> 90°	49 21 A21		1	
00 20 01 V03	069669		Water Pump	Pliers Set, three pliers in a foam tray		1065
			85 01 250	KNIPEX SmartGrip [®] , Water Pump Pliers with automatic adjustment	1	
			87 41 250	Multiple Slip Joint Spanner	1	
			87 51 250	KNIPEX Cobra® ES, Water Pump Pliers extra-slim	1	
00 20 01 V09	073291		Pliers Set "SF	Z II", four precision circlip pliers in a foam tray		820
		oti	48 11 J2	Duraisian Cimlia Diana fan internal sindira in hann halas	1	
		Ů <b>Ľ</b> <u>×</u> 90°	48 21 J21	Precision Circlip Pliers, for internal circlips in bore holes	1	
		ÖTIM	49 11 A2		1	
		Ů <b>E</b> S MM <u>∡</u> 90°	49 21 A21	Precision Circlip Pliers, for external circlips on shafts	1	

# **Tool Kits**



- > tools in a plastic deep-drawn tray with transparent lid
- > attractive sales packaging with Euro standard perforation
- > dimensions (W x H x D): 170 x 370 x 40 mm









**00 20 09 V01 Bestseller Set** pliers with polished heads; handles with non-slip plastic coating or with two-colour multi-components grips

Article No.	EAN 4003773-				Quantity	Nominal size	۲ <mark>۵</mark> g
00 20 09 V01	073994	Bestseller-Se	t				950
		03 02 180	Combination Pliers		1	180 mm	
		70 02 160	Diagonal Cutter	Knipex	1	160 mm	
		87 01 250	KNIPEX Cobra [®] , Hightech Water Pump Pliers		1	250 mm	

# 00 20 09 V02 Cobra® Set

pliers grey atramentized, handles with non-slip plastic coating

Article No.	EAN 4003773-				Quantity	Nominal size	۵'۵ g
00 20 09 V02	074793	Cobra® Set					1220
		87 01 180		Kniney	1	180 mm	
		87 01 250	KNIPEX Cobra®, Hightech Water Pump Pliers	Knipex	1	250 mm	
		87 01 300	nighteen water rump rifers		1	300 mm	

# 00 20 09 V03 Alligator® Set pliers with polished heads; handles

pliers with polished heads; handles with non-slip plastic coating

Article No.	EAN 4003773-					Quantity	Nominal size	۵'۵ g
00 20 09 V03	074809		Alligator [®] Se	et				1195
			88 01 180		Kniney	1	180 mm	
			88 01 250	KNIPEX Alligator [®] , Water Pump Pliers	Knipex	1	250 mm	
		-	88 01 300			1	300 mm	

**00 20 10 Power Set** pliers with polished heads and plastic coated handles

52 EAN Article No. 4003773-Quantity Nominal size g 00 20 10 010388 Power Set 990 02 01 180 High Leverage Combination Pliers 180 mm 1 74 01 160 High Leverage Diagonal Cutter 24 Knipex 1 160 mm KNIPEX Cobra®, 87 01 250 1 250 mm Hightech Water Pump Pliers



# **00 20 11 Assembly Set** pliers with two-colour multi-component grips

	EAN							52
Article No.	4003773-					Quantity	Nominal size	g
00 20 11	012405		Assembly Se	t				810
			03 02 180	Combination Pliers		1	180 mm	
		$\Theta$	26 12 200	Snipe Nose Side Cutting Pliers (Stork Beak Pliers)	Knipex	1	200 mm	
			70 02 160	Diagonal Cutter		1	160 mm	





**00 20 12 Electro Set** pliers VDE-tested in conformance with DIN EN/IEC 60900 1000V, pliers chrome-plated; handles with multi-component grips

Article No.	EAN 4003773-					Quantity	Nominal size	۵۵ g
00 20 12	012412		Electro Set					960
		<u>A</u> 1000 V ASA ™₩₩ ► ◀	03 06 180	Combination Pliers	Knipex	1	180 mm	
		★ 1000 V ④ ← =====	26 16 200	Snipe Nose Side Cutting Pliers (Stork Beak Pliers)		1	200 mm	
		<u>À</u> 1000 V ≙≧ <b>€</b>	70 06 160	Diagonal Cutter		1	160 mm	



#### 00 20 13 VDE Tool Set

tools VDE-tested in conformance to DIN EN/IEC 60900 1000V, pliers chrome-plated; handles with multi-component covers; with 3 WERA screwdrivers

Article No.	EAN 4003773-					Quantity	Nominal size	۵ <mark>۵</mark> g
00 20 13	043287		VDE Tool Set					850
		<b>≜ 1000 V ≙</b> ⊖ ====	26 16 200	Snipe Nose Side Cutting Pliers (Stork Beak Pliers)	Knipex	1	200 mm	
		<b>≜ 1000 V ≙</b> €	70 06 160	Diagonal Cutter		1	160 mm	
		£ 1000 V 🖄 🚭 🖨	006110	Screwdrivers for slotted		1	0.6 x 3.5 x 100 mm	
			006120	screws, 160i	Wera	1	1.0 x 5.5 x 125 mm	
		£ 1000 V 🖄 🚭 🗘	006154	Screwdrivers for cross recessed Phillips [®] screws, 162i PH		1	PH2 x 100 mm	

# TOOL ASSORTMENT

## **Tool Bag** 24 parts for electrical contractors, top model

- > contains 24 brand name tools, partly VDE tested according to DIN EN/IEC 60900
- comfortable bag of hard-wearing leather, with front bag, adjustable retaining loops and belt
- > with galvanized steel base tray
- > edges of the tool case reinforced with aluminium
- > dimensions, interior (W x H x D): 420 x 250 x 160 mm



Article No.	EAN 4003773-					Quantity	Nominal size	۲ <u>۲</u> g
00 21 01 TL	032694		Tool Bag 24 p	arts				6990
		£ 1000 V 🏤 🚰 💷 🖊 🔫	03 06 180	Combination Pliers		1	180 mm	
		£ 1000 V 🖄 🖨 MM	11 06 160	Insulation Stripper	-	1	160 mm	
		1000 V இ€ ⊖ আ∭ ▶٩	25 06 160	Snipe Nose Side Cutting Pliers, Radio Pliers	Knipex	1	160 mm	
		🛧 1000 V 🖄 🚰 🕨 🗨	70 06 160	Diagonal Cutter		1	160 mm	
		£ 1000 V 🖄 🚰	98 52	Cable Knife		1	185 mm	
		MM	16 20 165	Dismantling Tool		1	165 mm	
			361 252 1	Electrician's Chisel	Rennsteig	1	250 x 10 mm	
			340 300 1	Mason's Chisels	Rennstely	1		
			006100			1	0.4 x 2.5 x 80 mm	
		A 1000 V @ 🛋 🖱	006110	Screwdrivers for slotted screws, 160i		1	0.6 x 3.5 x 100 mm	
			006120			1	1.0 x 5.5 x 125 mm	
			006125			1	1.2 x 6.5 x 150 mm	
		A 1000 V 🙉 🖨 🔂	006152	Screwdrivers for cross recessed Phillips® screws, 162i PH	Wera	1	PH1 x 80 mm	
			006154			1	PH2 x 100 mm	
			007620	Screwdrivers for slotted screws, 334		1	1.0 x 6.0 x 125 mm	
		•	110010	Screwalivers for slotted screws, 554		1	1.2 x 6.5 x 150 mm	
			005655	Voltage Detector, 247		1	0.5 x 3.0 x 70 mm	
			101-0300	Locksmith's hammer		1	300 g	
			30490-800	Chipping hammer	_	1	800 g	
			75040-015	Flat brush	Picard	1	40 mm	
			75075-040	Painter's spatula		1	40 mm	
			71510-000	Metre ruler (yardstick)		1	2 m	
			306125	PUK [®] Junior Hacksaw	Haunstätter	1	150 x 240 mm	
			7165/50	Plasterer's bowl	Nölle	1	125 x 90 mm	

00

Tool Bag 24 parts

apprentices tool bag for electrical contractors

**00** 

- > light design made of hard-wearing, reinforced polyester fabric
- > front additionally reinforced with aluminium brackets
- > semi-fold-out front with adjustable loops and exterior document compartment
- > with galvanized steel base tray
- > with carrying handle and adjustable shoulder strap
- > dimensions, interior (W x H x D): 420 x 250 x 160 mm

#### Model 00 21 02 SL

contains 24 brand name tools, partly VDE tested according to DIN EN/IEC 60900

Model 00 21 02 LE without tools



Article No.	EAN 4003773-					Quantity	Nominal size	۲ g
00 21 02 SL	032687		Tool Bag 24	parts				6980
			03 05 180	Combination Pliers		1	180 mm	
		M	11 05 160	Insulation Stripper		1	160 mm	
		/vvv\	16 20 165	Dismantling Tool	Kniney	1	165 mm	
		$\Theta \blacksquare \blacksquare \blacksquare \blacksquare$	25 05 160	Snipe Nose Side Cutting Pliers (Radio Pliers)	Knipex	1	160 mm	
		<b>P1</b>	70 05 160	Diagonal Cutter		1	160 mm	
		<u> </u>	98 52	Cable Knife		1	185 mm	
			361 252 1	Electrician's Chisel	Demostalia	1	250 x 10 mm	
			340 250 1	Mason's Chisels	Rennsteig	1	250 mm	
			101-0300	Locksmith's hammer		1	300 g	
			401-1000	Sledge hammer		1	1000 g	
			75040-015	Flat brush	Picard	1	40 mm	
			75075-040	Painter's spatula		1	40 mm	
			71501-024	Carpenter's pencil		1	24 cm	
			031580			1	0.4 x 2.5 x 80 mm	
			031582			1	0.6 x 3.5 x 100 mm	
		≜ 1000 V 🖄 🚰 🖨	031587	Screwdrivers for slotted screws, 1160i		1	1.0 x 5.5 x 125 mm	
		_	031588			1	1.2 x 6.5 x 150 mm	
			031601		Wera	1	PH1 x 80mm	
		≜ 1000 V 🖄 🗲 🗘	031603			1	PH2 x 100 mm	
			031611	Screwdrivers for cross recessed Phillips® screws, 1162i		1	PZ1 x 80 mm	
		- A 1000 V 🖄 🗲 🗘	031613	Screwdrivers for cross recessed Pozidriv [®] , 1165i		1	PZ2 x 100 mm	
		•	005655	Voltage Detector, 247		1	0.5 x 3.0 x 70 mm	
			306125	PUK [®] Junior Hacksaw	Haunstätter	1	150 x 240 mm	
			7165/50	Plasterer's bowl	Nölle	1	125 x 90 mm	
00 21 02 LE	057499		Tool Bag "Ne	w Classic Basic" empty				3400

## Tool Case "Electric" 20 parts

#### **00** 21

- > heavy duty ABS material, black
- > with circumferential double aluminium frame
- > register hinges working as lid holder
- > strong, ergonomic handle
- > two flip-locks, lockable
- > one removable tool board in the lid with 15 push-in compartments on the bottom side and six big push-in compartments and a clamp compartment (400 mm width) on the lid side, fixed by push-button
- > base tray, height 58 mm, can be subdivided by flexible inserts; cover plate with six large push-in compartments, can be fixed by popper
- > cover and tool plate made of Con-Pearl® material
- > 20 kg maximum load
- > dimensions, exterior (W x H x D): 480 x 175 x 370 mm dimensions, interior (W x H x D): 460 x 170 x 310 mm

#### 00 21 20

with 20 brand name tools, partly VDE tested according to DIN EN/IEC 60900

00 21 20 LE without tools



#### 00 21 20

Article No.	EAN 4003773-					Quantity	Nominal size	۵'۵ g
00 21 20	052166		Tool Case "El	ectric", 20 parts				7225
		A 1000 V 🖄 🚰 💷 🚺 ► 🗨	03 06 180	Combination Pliers		1	180 mm	
		MM	12 40 200	Self-Adjusting Insulation Stripper		1	200 mm	
		/٧٧٧\	16 80 125	Universal Dismantling Tool		1	125 mm	
		A 1000 V @ P ← 💷 P ◄	26 16 200			1	200 mm	
		≵ 1000 V @ 🚰 🔏 40° ⊖ ा∭	26 26 200	Snipe Nose Side Cutting Pliers, (Stork Beak Pliers)		1	200 mm	
			70 06 160	Diagonal Cutter		1	160 mm	
		- 🛧 1000 V 🖄 🛃 🗲 🕇	74 06 200	High Leverage Diagonal Cutter	Knipex	1	200 mm	
		- III	86 03 180	Pliers Wrench, pliers and a wrench in a single tool		1	180 mm	
			87 03 250	KNIPEX Cobra®, Hightech Water Pump Pliers		1	250 mm	
		£ 1000 V 🖄 💕 🕄 🕤	95 16 200	Cable Shears, with twin cutting edge		1	200 mm	
		≙1000 V എ€	98 56	Cable Kn fe, with replaceable blade		1	185 mm	
			006100			1	0.4 x 2.5 x 80 mm	
			006115			1	0.8 x 4.0 x 100 mm	
		– 🋧 1000 V 🖄 🚭 🖨	006120	<ul> <li>Screwdrivers for slotted screws, 160i</li> </ul>		1	1.0 x 5.5 x 125 mm	
			006125	_	Wera	1	1.2 x 6.5 x 150 mm	
			006152	Screwdrivers for cross recessed		1	PH1 x 80 mm	
	1000 V @ 🖨 🗘		006154	Phillips [®] screws, 162i PH		1	PH2 x 100 mm	
A 10001/ A B B	A 1000 V A S A	006162	Screwdrivers for cross recessed		1	PZ1 x 80 mm		
	1000 V @ 🖨 🗘		006164	Pozidriv [®] screws, 165i		1	PZ2 x 100 mm	
		•	005655	Voltage Detector		1	0.5 x 3.0 x 70 mm	
00 21 20 LE	044567		Tool Case "S	tandard" empty				4485

## TOOL ASSORTMENT

# Tool Case "Electric" 23 parts

#### **00** 21

- > contains 23 brand name tools, partly VDE tested according to DIN EN/IEC 60900, 1000 V
- > hard-wearing ABS hard-shell construction with aluminium frame and circular buffer protection
- > document compartment and pen holding straps
- > one removable tool plate, with elastic loops on both sides
- > one cover plate with elastic loops and tool protection cloth
- > large base tray with variable separations (e.g. for measuring and testing devices). Interior dimensions: 420 x 320 x 85 mm
- > sturdy metal locks and 3-digit-lock
- > strong, ergonomic handle
- > feet on both sides
- > colour: silver / aluminium look



#### 00 21 30

Article No.	EAN 4003773-					Quantity	Nominal size	۲ g
00 21 30	051084	Tool Case for electrical contrac	tors, 23 parts		1			9440
			00 11 03	Control Cabinet Key, for all standard cabinets and shut-off systems		1	76 mm	
		🛧 1000 V 🖄 🚰 💷 🕅 🗲 🕇	03 06 180	Combination Pliers		1	180 mm	
			12 40 200	Self-Adjusting Insulation Stripper		1	200 mm	
		- MM	16 80 125	Universal Dismantling Tool		1	125 mm	
		A 1000 V @ 🖨 ⊖ 💷 💌	26 16 200	Coine Nees Side Cutting Dilane		1	200 mm	
		≙ 1000 V ఊ 🖨 🔏 ⊕ আ	26 26 200	Snipe Nose Side Cutting Pliers, (Stork Beak Pliers)		1	200 mm	
			70 06 125		Knipex	1	125 mm	
		A 1000 V 🖄 🛃 🗲 🕇	70 06 160	Diagonal Cutter		1	160 mm	
			86 03 180	Pliers Wrench, pliers and a wrench in a single tool		1	180 mm	
			87 03 250	KNIPEX Cobra®, Hightech Water Pump Pliers			250 mm	
		<u> </u>	92 27 62	Precision Tweezers		1	150 mm	
		<u></u> £ 1000 V	98 56	Cable Kn fe, with replaceable blade		1	185 mm	
			006100			1	0.4 x 2.5 x 80 mm	
			006110			1	0.6 x 3.5 x 100 mm	
		A 1000 V 🙉 🖨 🖨	006115	Screwdrivers for slotted screws,		1	0.8 x 4.0 x 100 mm	
		X 1000 V @@	006120	160i		1	1.0 x 5.5 x 125 mm	
			006125			1	1.2 x 6.5 x 150 mm	
			006130		Wera	1	1.2 x 8.0 x 175 mm	
		006150			1	PH0 x 80 mm		
		🛧 1000 V 🖄 🚰 🗘	006152	Screwdrivers for cross recessed Phillips® screws		1	PH1 x 80 mm	
			006154			1	PH2 x 100 mm	
		A 10001/ @ 🛋 🚳	006162	Screwdrivers for cross recessed		1	PZ1 x 80 mm	
		🛧 1000 V 🖄 🛃 🛟	006164	Pozidriv [®] screws		1	PZ2 x 100 mm	

## TOOL CASES

#### Belt Pouch for two pliers

- > for two pliers up to 150 mm length
- > made of hard-wearing polyester fabric
- > with hook and loop fastener
- > with elastic side holder for small flash lamp, pen or suchlike
- > with practical belt loop

Article No.	EAN 4003773-	Width mm	Height mm	Depth mm	۵'۵ g	00 19 72 LE
00 19 72 LE	070191	65	155	25	65	

# Belt Tool Pouch

**00** 19

00

19

- > made of hard-wearing polyester fabric and leather
- > with pockets for up to 8 tools
- > tool loops made of leather, riveted
- > with snap hook

KNIPEX	

Article No.	EAN 4003773-	Width mm	Height mm	Depth mm	۲ d	00 19 73 LE
00 19 73 LE	072065	170	235	75	210	

# Tool Bag "New Classic Basic"



- > light design made of hard-wearing, reinforced polyester fabric
- > front additionally reinforced with aluminium brackets
- > semi-fold-out front with adjustable loops and exterior
- document compartment
- > with galvanized steel base tray
- > with carrying handle and adjustable shoulder strap



00 21 02 LE

Article No.	EAN 4003773-	Dimension exterior width mm	Dimension exterior height mm	Dimension exterior depth mm	۲ _م
00 21 02 LE	057499	440	270	180	2970

Model 00 21 02 LE without tools

# Traditional Tool Pouch empty

- > made of hard-wearing polyester fabric
- > for tools up to approx. 450 mm in length
- > with document compartment on the back
- > with carrying handle and adjustable shoulder strap
- > closing strap made of leather
- > dimensions, exterior (W x H x D): 520 x 200 x 230 mm, dimensions, interior (W x H x D): 490 x 140 x 155 mm

Article No.	EAN 4003773-	Width mm	Height mm	Depth mm	۵۵ g	
00 21 07 LE	071358	520	200	230	1510	

#### Tool Bag "LightPack" empty

- > can be opened both sides
- > made from tough polyester fabric, with zip fasteners and hook and loop fastener
- > tool loops inside
- > plastic base tray
- > steel handle with softgrip
- > shoulder strap (can also be used as tool belt) with small pouch for the mobile
- > 20 kg maximum load

Article No.	EAN	Width	Height	Depth	۵'۵
	4003773-	mm	mm	mm	g
00 21 08 LE	077787	480	380	300	3450



00 21 07 LE

**00** 21

00

21



## Tool and notebook bag for service technicians empty

- 00 2'
- > lined inside pouch for notebook and DIN A4 documents; also 1 DIN A4 zipped compartment
- > 90° fold-out front pouch with 8 tool pouches and 1 small inside pouch
- > reverse side of the front pouch with 5 tool pouches and 3 pen pouches
- > 1 removeable tool panel with 8 tool pouches on the front and 2 rows of elastic loops on the back
- > splash-water-protected bottom
- > adjustable shoulder belt with quick-release fastener
- > with two carry loops
- > made of hard-wearing polyester fabric



00 21 10 LE

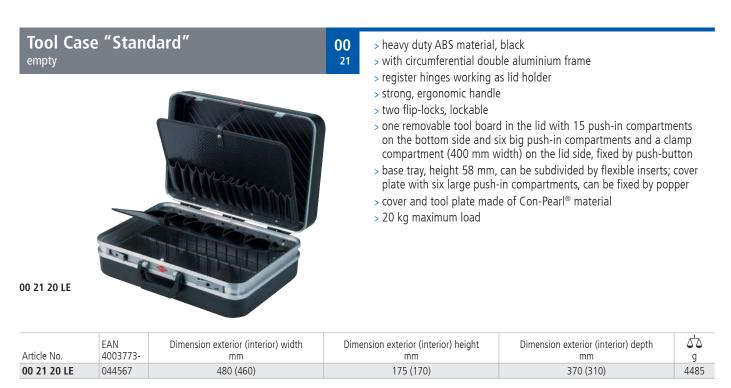
	EAN	Dimension exterior width	Dimension exterior height	Dimension exterior depth	55
Article No.	4003773-	mm	mm	mm	g
00 21 10 LE	074472	440	200	340	2700

#### TOOL CASES



00 21 05 LE

Article No.	EAN	Dimension exterior (interior) width	Dimension exterior (interior) height	Dimension exterior (interior) depth	۵'۵
	4003773-	mm	mm	mm	g
00 21 05 LE	056904	465 (440)	200 (180)	410 (350)	5680



Tool Case "Classic II" empty



> heavy duty ABS material, black

- > with circumferential double aluminium frame
- > register hinges working as lid holder
- > sturdy multi-component handle with grip recesses
- > two flip-locks, lockable
- > document compartment in the cover
- > one removable tool board in the lid with CP7-tool holder (thickness 11 mm) on the bottom side
- > one tool board in the lid with CP7-tool holder (thickness 11 mm) on the lid side and CP7- tool holder (thickness 15 mm) on the bottom side
- > base tray, height 58 mm, can be subdivided by flexible inserts; cover plate with CP7-tool holder (thickness 25 mm) on the lid side, can be fixed by popper
- > cover and tool plate made of Con-Pearl® material
- > 30 kg maximum load

Article No.	EAN	Dimension exterior (interior) width	Dimension exterior (interior) height	Dimension exterior (interior) depth	۵ ^۲ ۵
	4003773-	mm	mm	mm	g
00 21 32 LE	057536	480 (415)	180 (160)	365 (300)	5235

**00** 21

00

21

### Tool Case "BIG Twin" empty

#### 00 21 40 LE

- > heavy duty ABS material, black
- > sturdy aluminium frame with D-shape rings for belt and fix, sturdy centre board with multi-purpose push-in facilities by elastic loops and twelve small pockets
- > comfortable handle and mounting device for a "Trolley" embedded in the bottom (available ordering ref. 00 21 40 T)
- > metal hinges
- > 30 kg 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 two flip-locks for fixation of the cover
- > removable document compartment and removable tool board, with 13 push-in compartments on one side
- > two flip-locks to fix the bottom
- > base tray, height 58 mm, can be subdivided by flexible inserts; cover plate with six large push-in compartments, can be fixed by popper
- > dimensions exterior: (W x H x D): 490 x 255 x 410 mm dimensions interior: (W x H x D): 445 x (105 + 105) x 350 mm

#### 00 21 40 T

- > telescopic handle for rolling transport of tool case
- > applicable for cases:
- 00 21 40 LE Tool Case "BIG Twin", 98 99 14 Universal Tool Case > height adjustable handle with catch
- > integrated mechanism for fixation to the case, for rapid assembly and removal
- > with two smooth castors
- > dimensions: 60 x 245 x 400 (1,000) mm (extended)



52 FAN Dimension exterior (interior) width Dimension exterior (interior) height Dimension exterior (interior) depth 4003773-Article No. mm mm mm g 00 21 40 LE 057673 490 (445) 255 (105 + 105) 410 (350) 7550 062981 00 21 40 T Trolley for rolling case transport 1200

## TOOL CASES

#### **Tool Case "BIG Twin-Move"** with integrated rollers and telescopic handle, empty

#### **00** 21

- > heavy duty ABS material, black
- > all-round aluminium frame and firmly mounted sturdy centre 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 integrated smooth in-line skater runners
- > 30 kg 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 runners are gentle on the floor and ensure stability
- > lockable
- > removable document compartment and removable tool panel with 13 tool pouches
- > base tray, height 60 mm, can be subdivided by flexible inserts; tool panel as cover plate with 13 tool pouches



A	EAN	Dimension exterior (interior) width	Dimension exterior (interior) height	Dimension exterior (interior) depth	52
Article No.	4003773-	mm	mm	mm	g
00 21 41 LE	071549	510 (480/445)	270 (105)	410 (370/330)	8600

# 

Article No.	EAN	Dimension exterior width	Dimension exterior height	Dimension exterior depth	۵'۵
	4003773-	mm	mm	mm	g
00 21 11 LE	077718	410	60	290	450

# Tool case "ROBUST"

**00** 21

#### Fit to fly case made from impact-resistant polypropylene

- > dustproof, airtight, watertight
- > air pressure compensation valve
- > temperatures ranging from -40° up to +80° C
- > padlock eyelets
- > document compartment; tool panels with 35 push-in compartments which can be filled with tools
- > 2 aluminium dividers to customize the bottom tray
- > 30 kg maximum load



Two-stage locks, easy to open – also with one hand



Automatic pressure compensation valve, permeable to air while keeping out water



Article No.	EAN	Dimension exterior (interior) width	Dimension exterior (interior) height	Dimension exterior (interior) depth	۲۵
	4003773-	mm	mm	mm	g
00 21 35 LE	077596	470 (437)	190 (172)	370 (307)	4800

00 11 01	148	00 21 40 T	231	09 02 240 T	33	13 42 165	50	23 01 140	37	30 33 160	64	40 14 250	68
00 11 02	149	00 21 40 T	271	09 02 240 T	257	13 45 165	50	25 01 125	38	30 35 140	64	41 04 180	69
00 11 03	149	00 21 41 LE	272	09 11 240	33	13 46 165	50	25 01 140	38	30 35 160	64	41 04 250	69
00 11 04	149	01 06 160	32	09 12 240	33	13 46 165	198	25 01 160	38	30 36 160	64	41 04 300	69
00 11 06	149	01 06 160	196	09 12 240 T	33	13 81 200	35	25 02 140	38	30 36 160	202	41 14 250	69
00 11 06 V01	149	01 06 190	32	09 12 240 T	257	13 82 200	35	25 02 160	38	30 41 160	147	41 24 225	69
00 11 06 V02	150	01 06 190	196	10 98 1220	132	13 82 200 T	35	25 03 125	38	31 11 160	63	41 34 165	69
00 11 07	150	02 01 180	29	10 99 1220	132	13 82 200 T	257	25 05 140	38	31 15 160	63	41 44 200	69
00 11 08	151	02 01 200	29	11 01 160	42	13 86 200	35	25 05 160	38	31 21 160	63	42 14 280	68
00 11 17	151	02 01 225	29	11 02 160	42	13 86 200	200	25 06 160	38	31 25 160	63	42 24 280	68
00 11 V50	147	02 02 180	29	11 05 160	42	13 91 200	35	25 06 160	201	32 11 135	65	42 34 280	68
00 19 41	260	02 02 200	29	11 06 160	42	13 92 200	35	25 21 160	38	32 21 135	65	42 44 280	68
00 19 55 S4	113	02 02 225	29	11 06 160	198	13 96 200	35	25 25 160	38	32 31 135	65	44 10 J5	78
00 19 56	81	02 02 225 T	29	11 07 160	42	13 96 200	200	25 26 160	38	33 01 160	65	44 10 J6	78
00 19 57	81	02 02 225 T	257	11 07 160	198	14 22 160	43	25 26 160	201	33 03 160	65	44 11 J0	72
00 19 72 LE	260	02 05 180	29	11 12 160	42	14 25 160	43	26 11 200	39	34 12 130	244	44 11 J1	72
00 19 72 LE	268	02 05 200	29	11 17 160	42	14 26 160	43	26 12 200	39	34 12 130 ESD	244	44 11 J2	72
00 19 73 LE	268	02 05 225	29	11 17 160	198	14 26 160	199	26 12 200 T	39	34 22 130	244	44 11 J3	72
00 20 01 V01	261	02 06 180	29	11 82 130	42	15 11 120	49	26 12 200 T	257	34 22 130 ESD	244	44 11 J4	72
00 20 01 V02	81	02 06 180	196	11 92 140	43	15 19 005	49	26 13 200	39	34 32 130	244	44 13 J0	72
00 20 01 V02	261	02 06 200 02 06 200	29	12 11 180 12 12 02	45 45	15 19 006 15 19 008	49 49	26 15 200 26 15 200 T	39 39	34 32 130 ESD 34 42 130	244	44 13 J1	72 72
00 20 01 V03 00 20 01 V09	261 81	02 06 200	196 29	12 12 02	45	15 19 008	49	26 15 200 T 26 15 200 T	257	34 42 130 34 42 130 ESD	244	44 13 J2 44 13 J3	72
00 20 01 V09	261	02 06 225	196	12 12 00	45	15 51 160	49 51	26 15 200 1	39	34 52 130 230	244 244	44 13 J3 44 13 J4	72
00 20 01 V09	82	02 00 225	29	12 12 10	45	15 61 160	51	26 16 200	201	34 52 130 34 52 130 ESD	244	44 13 J4 44 19 J5	72
00 20 03 3D	83	02 07 200	196	12 12 12	45	15 81 160	51	26 17 200	39	35 11 115	244	44 19 J6	78
00 20 04 SB	82	02 07 200	29	12 12 12	45	16 20 16 SB	51	26 17 200	201	35 12 115	245	44 20 J51	78
00 20 04 3D	83	02 07 225	196	12 12 13	45	16 20 28 SB	51	26 21 200	39	35 12 115 ESD	246	44 20 J61	78
00 20 09 V01	263	03 01 140	28	12 19 02	45	16 20 165 SB	51	26 22 200	39	35 21 115	245	44 21 J01	72
00 20 09 V02	263	03 01 160	28	12 19 06	45	16 29 165	51	26 22 200 T	39	35 22 115	245	44 21 J11	72
00 20 09 V03	263	03 01 180	28	12 19 10	45	16 30 135 SB	52	26 22 200 T	257	35 22 115 ESD	246	44 21 J21	72
00 20 10	263	03 01 200	28	12 19 11	45	16 39 135	52	26 25 200	39	35 31 115	245	44 21 J31	72
00 20 11	263	03 01 250	28	12 19 12	45	16 40 150	52	26 25 200 T	39	35 32 115	245	44 21 J41	72
00 20 12	263	03 02 160	28	12 19 13	45	16 49 150	52	26 25 200 T	257	35 32 115 ESD	246	44 23 J11	72
00 20 13	263	03 02 180	28	12 19 14	45	16 60 05 SB	53	26 26 200	39	35 42 115	245	44 23 J21	72
00 20 15	227	03 02 200	28	12 19 180	45	16 60 06 SB	53	26 26 200	201	35 42 115 ESD	246	44 23 J31	72
00 20 16	248	03 05 140	28	12 21 180	45	16 60 100 SB	54	26 27 200	39	35 52 145	245	44 29 J51	78
00 20 16 P	248	03 05 160	28	12 29 180	45	16 64 125 SB	54	26 27 200	201	35 62 145	245	44 29 J61	78
00 20 16 P ESD	248	03 05 180	28	12 40 200	47	16 65 125 SB	54	27 01 160	37	35 72 145	245	44 31 J02	72
00 20 17	248	03 05 200	28	12 42 195	46	16 80 125 SB	55	28 01 200	61	35 82 145	245	44 31 J12	72
00 20 18	248	03 06 160	28	12 49 01	47	16 85 125 SB	55	28 21 200	61	36 12 130	247	44 31 J22	72
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48 41 J11 48 41 J21 48 41 J31 49 11 A0 49 11 A1 49 11 A2 49 11 A3 49 11 A3 49 11 A4 49 21 A01 49 21 A11 49 21 A21 49 21 A31 49 21 A41 49 31 A0 49 31 A2 49 31 A3	75 75 76 76 76 76 76 76 76 76 76 76 76 77 77	68 01 280 68 01 280 69 01 130 69 03 130 70 01 110 70 01 125 70 01 140 70 01 160 70 01 180 70 02 125 70 02 140 70 02 160 70 02 180 70 05 125 70 05 160 70 05 160 T	87 109 109 94 94 95 94 94 95 94 95 94 94 95 95 95	72 01 160 72 01 180 72 02 125 72 11 160 72 21 160 73 25 160 73 05 160 73 05 160 73 05 160 73 06 160 73 06 160 73 71 180 73 72 180 73 72 180 73 72 180 73 72 180 73 72 180 73 72 180	92 92 92 92 97 97 97 257 97 205 100 100 100 99 99	76 12 125         76 22 125         76 81 125         77 01 115         77 01 130         77 02 115 ESD         77 02 120 H         77 02 135 H         77 02 135 H         77 11 115         77 12 135 H ESD         77 12 135 H ESD         77 12 115 ESD         77 12 115 ESD         77 12 115 ESD         77 12 115 ESD         77 21 115         77 21 115         77 21 115         77 21 130	96 96 239 239 240 241 241 241 241 241 241 239 240 239 239 239	81 01 250 81 03 250 81 11 250 81 13 250 81 19 230 83 10 010 83 10 015 83 10 020 83 10 020 83 10 040 83 20 010 83 20 015 83 20 020 83 30 005 83 30 015 83 30 020	128 128 128 128 126 126 126 126 126 126 126 126 126 127 127 127	87 03 180 87 03 250 87 03 300 87 05 250 87 05 300 87 11 250 87 19 250 87 21 250 87 21 250 87 22 250 87 26 250 87 26 250 87 41 250 87 51 250 88 01 180 88 01 250	1117 117 117 117 119 119 120 120 120 120 121 207 115 121 123 123	91 71 160 91 92 180 91 92 180 92 02 53 92 02 54 92 02 55 92 08 78 ESD 92 08 79 ESD 92 08 79 ESD 92 12 52 92 22 04 92 22 06 92 22 07 92 22 12 92 22 12 92 22 13 92 22 35 92 23 05	146 144 249 249 253 253 249 249 249 249 249 250 250 250 250 249 249
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48 41 J11 48 41 J21 48 41 J31 49 11 A0 49 11 A1 49 11 A2 49 11 A3 49 11 A3 49 11 A4 49 21 A01 49 21 A11 49 21 A21 49 21 A41 49 31 A0 49 31 A1 49 31 A2 49 31 A3 49 41 A01 49 41 A11	75 75 76 76 76 76 76 76 76 76 76 76 77 77 77	68 01 280 68 01 280 69 01 130 69 03 130 70 01 110 70 01 125 70 01 140 70 01 160 70 01 180 70 02 125 70 02 140 70 02 160 70 05 125 70 05 140 70 05 160 T 70 05 160 T 70 05 180	87 109 109 94 94 95 94 94 95 94 94 95 94 95 95 257 94	72 01 160 72 01 180 72 02 125 72 11 160 72 21 160 73 25 160 73 05 160 73 05 160 73 05 160 73 05 160 73 06 160 73 72 180 73 72 180 74 01 140 74 01 180 74 01 200	92 92 92 92 97 97 97 97 257 97 205 100 100 100 99 99 99 99	76 12 125         76 22 125         76 81 125         77 01 115         77 01 130         77 02 115 ESD         77 02 120 H         77 02 135 H         77 02 135 H         77 12 115 ESD         77 12 115 ESD         77 12 115 ESD         77 12 115 ESD         77 21 130         77 21 130         77 21 130         77 22 115 ESD         77 22 115 ESD         77 22 115 ESD	96 96 239 239 240 241 241 241 239 240 239 239 239 239 239 239 240	81 01 250         81 03 250         81 11 250         81 13 250         81 19 230         83 10 010         83 10 015         83 10 020         83 10 020         83 20 010         83 20 015         83 30 005         83 30 015         83 30 015         83 30 020         83 30 030         83 30 030         83 30 010	128 128 128 128 126 126 126 126 126 126 126 126 126 127 127 127 127 127	87 03 180 87 03 250 87 03 300 87 05 250 87 05 300 87 11 250 87 19 250 87 21 250 87 21 250 87 22 250 87 26 250 87 26 250 87 41 250 87 51 250 88 01 180 88 01 250 88 01 300 88 01 400 88 02 180	1117 117 117 117 119 120 120 120 120 121 207 115 121 123 123 123 124 123	91 71 160 91 92 180 91 92 180 92 02 53 92 02 54 92 02 55 92 08 78 ESD 92 08 79 ESD 92 08 79 ESD 92 12 52 92 22 04 92 22 06 92 22 07 92 22 13 92 22 13 92 22 13 92 22 35 92 23 05 92 24 01 92 24 34 92 27 61	146 144 249 249 253 253 249 249 249 249 250 250 250 250 249 249 250 250 250 250
48 41 J11 48 41 J21 48 41 J31 49 11 A0 49 11 A1 49 11 A2 49 11 A3 49 11 A3 49 11 A4 49 21 A01 49 21 A11 49 21 A21 49 21 A31 49 31 A0 49 31 A2 49 31 A3 49 41 A01	75 75 76 76 76 76 76 76 76 76 76 76 76 77 77	68 01 280 68 01 280 69 01 130 69 03 130 70 01 110 70 01 125 70 01 140 70 01 160 70 01 180 70 02 125 70 02 140 70 02 160 70 02 180 70 05 125 70 05 160 70 05 160 70 05 160	87 109 109 94 94 95 94 94 94 95 94 94 95 94 95 95 257	72 01 160 72 01 180 72 02 125 72 11 160 72 21 160 73 25 160 73 05 160 73 05 160 73 05 160 73 06 160 73 70 180 73 72 180 74 01 160 74 01 180	92 92 92 92 97 97 97 97 257 97 205 100 100 100 99 99 99	76 12 125 76 22 125 76 81 125 77 01 115 77 01 130 77 02 115 77 02 115 ESD 77 02 120 H 77 02 120 H 77 02 130 77 02 135 H 77 02 135 H 77 12 115 77 12 115 77 12 115 77 21 130 77 21 130	96 96 239 239 240 241 241 239 241 239 240 239 239 239 239 239	81 01 250 81 03 250 81 11 250 81 13 250 81 19 230 83 10 010 83 10 015 83 10 020 83 10 020 83 10 040 83 20 010 83 20 015 83 20 020 83 30 005 83 30 015 83 30 020 83 30 030	128 128 128 128 126 126 126 126 126 126 126 126 126 127 127 127 127	87 03 180 87 03 250 87 03 300 87 05 250 87 05 300 87 11 250 87 19 250 87 21 250 87 21 250 87 22 250 87 26 250 87 26 250 87 41 250 87 51 250 88 01 180 88 01 250 88 01 300	1117 117 117 117 119 119 120 120 120 120 121 207 115 121 123 123 123 124	91 71 160 91 92 180 91 92 180 92 02 53 92 02 54 92 02 55 92 08 78 ESD 92 08 79 ESD 92 08 79 ESD 92 12 52 92 22 04 92 22 06 92 22 07 92 22 12 92 22 13 92 22 13 92 22 35 92 23 05 92 24 01	146 144 249 249 253 253 249 249 249 249 250 250 250 250 249 249 249 250
48 41 J11 48 41 J21 48 41 J31 49 11 A0 49 11 A1 49 11 A2 49 11 A3 49 11 A3 49 11 A4 49 21 A01 49 21 A11 49 21 A21 49 21 A41 49 31 A0 49 31 A1 49 31 A2 49 31 A3 49 41 A01 49 41 A11	75 75 76 76 76 76 76 76 76 76 76 76 77 77 77	68 01 280 68 01 280 69 01 130 69 03 130 70 01 110 70 01 125 70 01 140 70 01 160 70 01 180 70 02 125 70 02 140 70 02 160 70 05 125 70 05 140 70 05 160 T 70 05 160 T 70 05 180	87 109 109 94 94 95 94 94 95 94 94 95 94 95 95 257 94	72 01 160 72 01 180 72 02 125 72 11 160 72 21 160 73 25 160 73 05 160 73 05 160 73 05 160 73 05 160 73 06 160 73 72 180 73 72 180 74 01 140 74 01 180 74 01 200	92 92 92 92 97 97 97 97 257 97 205 100 100 100 99 99 99 99	76 12 125         76 22 125         76 81 125         77 01 115         77 01 130         77 02 115 ESD         77 02 120 H         77 02 135 H         77 02 135 H         77 12 115 ESD         77 12 115 ESD         77 12 115 ESD         77 12 115 ESD         77 21 130         77 21 130         77 21 130         77 22 115 ESD         77 22 115 ESD         77 22 115 ESD	96 96 239 239 240 241 241 241 239 240 239 239 239 239 239 239 240	81 01 250         81 03 250         81 11 250         81 13 250         81 19 230         83 10 010         83 10 015         83 10 020         83 10 020         83 20 010         83 20 015         83 30 005         83 30 015         83 30 015         83 30 020         83 30 030         83 30 030         83 30 010	128 128 128 128 126 126 126 126 126 126 126 126 126 127 127 127 127 127	87 03 180 87 03 250 87 03 300 87 05 250 87 05 300 87 11 250 87 19 250 87 21 250 87 21 250 87 22 250 87 26 250 87 26 250 87 41 250 87 51 250 88 01 180 88 01 250 88 01 300 88 01 400 88 02 180	1117 117 117 117 119 120 120 120 120 121 207 115 121 123 123 123 124 123	91 71 160 91 92 180 91 92 180 92 02 53 92 02 54 92 02 55 92 08 78 ESD 92 08 79 ESD 92 08 79 ESD 92 12 52 92 22 04 92 22 06 92 22 07 92 22 13 92 22 13 92 22 13 92 22 35 92 23 05 92 24 01 92 24 34 92 27 61	146 144 249 249 253 253 249 249 249 249 250 250 250 250 249 249 250 250 250 250
48 41 J11 48 41 J21 48 41 J31 49 11 A0 49 11 A1 49 11 A2 49 11 A3 49 11 A3 49 11 A4 49 21 A01 49 21 A11 49 21 A21 49 31 A0 49 31 A1 49 31 A2 49 31 A3 49 41 A01 49 41 A21	75 75 76 76 76 76 76 76 76 76 76 76 77 77 77	68 01 280 68 01 280 69 01 130 69 03 130 70 01 110 70 01 125 70 01 140 70 01 160 70 02 125 70 02 140 70 02 160 70 02 180 70 05 140 70 05 160 70 05 160 70 05 180 70 05 180	87 109 109 94 94 95 94 94 95 94 94 95 95 257 94 95	72 01 160 72 02 125 72 11 160 72 21 160 72 21 160 73 25 160 73 05 160 73 05 160 73 05 160 73 05 160 73 06 160 73 06 160 73 71 180 73 72 180 73 72 180 73 72 180 74 01 160 74 01 160 74 01 200 74 01 250	92 92 92 92 97 97 97 257 97 205 100 100 100 99 99 99 99 99	76 12 125         76 22 125         76 81 125         77 01 115         77 01 130         77 02 15 ESD         77 02 120 H         77 02 135 H         77 02 135 H         77 02 135 H         77 12 115 ESD         77 12 115 ESD         77 12 115 ESD         77 21 130         77 21 130         77 22 115 ESD         77 22 130	96 96 239 239 240 241 241 241 241 239 241 239 240 239 239 239 240 239 240 239	81 01 250         81 03 250         81 11 250         81 13 250         81 19 230         83 10 010         83 10 015         83 10 020         83 10 040         83 20 010         83 20 015         83 30 005         83 30 010         83 30 015         83 30 020         83 30 030         83 60 010         83 60 015	128 128 128 128 126 126 126 126 126 126 126 126 127 127 127 127 127 127 127	87 03 180         87 03 250         87 03 300         87 05 250         87 05 300         87 11 250         87 19 250         87 21 250         87 22 250         87 26 250         87 41 250         87 51 250         88 01 180         88 01 250         88 01 250         88 01 300         88 01 400         88 02 180         88 02 250	1117 117 117 117 119 119 120 120 120 120 121 207 115 121 123 123 123 123 124 123	91 71 160 91 92 180 91 92 180 92 02 53 92 02 54 92 02 55 92 08 78 ESD 92 08 79 ESD 92 08 79 ESD 92 12 52 92 22 04 92 22 07 92 22 07 92 22 13 92 22 13 92 22 35 92 23 05 92 24 01 92 24 34 92 27 61	146 144 249 249 253 253 249 249 249 249 250 250 250 250 250 250 250 250 250 250
48 41 J11 48 41 J21 48 41 J21 49 11 A0 49 11 A1 49 11 A2 49 11 A3 49 11 A4 49 21 A01 49 21 A01 49 21 A11 49 21 A21 49 21 A31 49 31 A3 49 31 A3 49 41 A01 49 41 A21 49 41 A31	75 75 76 76 76 76 76 76 76 76 76 76 77 77 77	68 01 280 68 01 280 69 01 130 69 03 130 70 01 110 70 01 125 70 01 140 70 01 160 70 02 125 70 02 140 70 02 140 70 02 180 70 05 125 70 05 140 70 05 160 70 05 160 70 05 160 70 05 160 70 05 180 70 000	87 109 109 94 94 95 94 94 95 94 94 95 95 257 94 94 95	72 01 160         72 01 180         72 02 125         72 11 160         72 21 160         72 51 160         73 05 160         73 05 160 T         73 72 180 F         74 01 180         74 01 200         74 02 140	92 92 92 92 97 97 97 257 97 205 100 100 100 99 99 99 99 99 99	76 12 125         76 22 125         76 81 125         77 01 115         77 01 130         77 02 115 ESD         77 02 120 H         77 02 130         77 02 135 H         77 02 135 H         77 02 135 H         77 02 135 H         77 12 115         77 12 115 ESD         77 21 130         77 22 115 ESD         77 22 115 ESD         77 22 115 ESD         77 22 130         77 22 130         77 32 115	96 96 239 239 240 241 241 241 241 241 239 240 239 239 239 240 239 239 240 239 239	81 01 250         81 03 250         81 11 250         81 13 250         81 19 230         83 10 010         83 10 015         83 10 020         83 10 030         83 20 010         83 20 015         83 30 005         83 30 010         83 30 020         83 30 030         83 60 010         83 60 015         83 60 020	128 128 128 128 126 126 126 126 126 126 126 126 127 127 127 127 127 127 127 127	87 03 180 87 03 250 87 03 300 87 05 250 87 05 300 87 11 250 87 19 250 87 21 250 87 21 250 87 22 250 87 26 250 87 26 250 87 41 250 88 01 250 88 01 180 88 01 250 88 01 400 88 02 180 88 02 250 T	1117 117 117 117 119 119 120 120 120 120 120 121 207 115 121 123 123 123 123 123 123	91 71 160 91 92 180 91 92 180 92 02 53 92 02 54 92 02 55 92 08 78 ESD 92 08 79 ESD 92 12 52 92 22 04 92 22 06 92 22 07 92 22 12 92 22 13 92 22 35 92 23 05 92 23 05 92 24 01 92 24 34 92 27 61 92 27 62	146 144 249 249 249 253 253 249 249 249 250 250 250 250 250 250 250 250 250 250
48 41 J11 48 41 J21 48 41 J21 49 11 A0 49 11 A1 49 11 A2 49 11 A2 49 11 A3 49 11 A4 49 21 A01 49 21 A11 49 21 A21 49 21 A11 49 21 A41 49 31 A0 49 31 A1 49 31 A3 49 41 A01 49 41 A11 49 41 A21 49 41 A31 50 00 160	75 75 76 76 76 76 76 76 76 76 76 76 76 77 77	68 01 280 68 01 280 69 01 130 69 03 130 70 01 110 70 01 125 70 01 140 70 01 160 70 02 125 70 02 140 70 02 140 70 02 180 70 05 125 70 05 140 70 05 160 70 05 180 70 00 100 10000000000000000000000000	87 109 109 94 94 95 94 94 94 94 94 95 94 94 95 257 94 94 257 94	72 01 160         72 01 180         72 02 125         72 11 160         72 21 160         72 21 160         73 05 160         73 05 160 T         73 05 160 T         73 06 160         73 71 180         73 72 180         73 74 180         74 01 140         74 01 200         74 01 250         74 02 140         74 02 160	92 92 92 92 97 97 97 257 97 205 100 100 100 99 99 99 99 99 99 99	76 12 125         76 22 125         76 81 125         77 01 115         77 01 130         77 02 115 ESD         77 02 120 H         77 02 130 H         77 02 135 H         77 02 135 H         77 02 135 H         77 02 135 H         77 12 115 ESD         77 21 15 ESD         77 22 115 ESD         77 22 115 ESD         77 22 115 ESD         77 22 115 ESD         77 22 130 H         77 32 115 ESD         77 32 115 ESD	96 96 239 239 240 241 241 241 241 241 239 240 239 240 239 239 240 239 239 240 239 240 239 240 239 240 239 240 241 241 241 241 241 241 241 241 241 241	81 01 250         81 03 250         81 11 250         81 13 250         81 13 250         81 19 230         83 10 010         83 10 015         83 10 020         83 10 030         83 20 010         83 20 015         83 20 020         83 30 005         83 30 010         83 30 020         83 30 030         83 60 010         83 60 020         83 60 020         83 61 010	128 128 128 128 126 126 126 126 126 126 126 126 127 127 127 127 127 127 127 127 127	87 03 180 87 03 250 87 03 300 87 05 250 87 05 300 87 11 250 87 21 250 87 21 250 87 21 250 87 22 250 87 26 250 87 26 250 87 41 250 87 41 250 88 01 180 88 01 250 88 01 400 88 02 180 88 02 250 T 88 02 250 T	1117 117 117 117 119 119 120 120 120 120 121 207 115 121 123 123 123 123 123 123 123 123	91 71 160 91 92 180 91 92 180 92 02 53 92 02 54 92 02 55 92 08 78 ESD 92 08 79 ESD 92 12 52 92 22 04 92 22 04 92 22 07 92 22 12 92 22 13 92 22 13 92 22 35 92 23 05 92 24 01 92 24 34 92 27 61 92 27 62 92 27 62	146 144 249 249 253 253 249 249 249 250 250 250 250 250 250 250 250 250 208 252 208 252
48 41 J11 48 41 J21 48 41 J21 49 11 A0 49 11 A1 49 11 A2 49 11 A3 49 11 A4 49 21 A01 49 21 A11 49 21 A21 49 21 A21 49 21 A31 49 21 A41 49 31 A0 49 31 A1 49 31 A2 49 31 A3 49 41 A01 49 41 A11 49 41 A21 49 41 A31 50 00 160 50 00 180	75 75 76 76 76 76 76 76 76 76 76 76 76 77 77	68 01 280 68 01 280 69 01 130 69 03 130 70 01 110 70 01 125 70 01 140 70 01 160 70 02 125 70 02 140 70 02 140 70 02 180 70 05 180 70 05 160 70 05 160 00 00 00 00 00 00 00 00 00 000 000	87 109 109 94 94 95 94 94 94 94 94 94 95 95 257 94 94 257 94 227	72 01 160         72 01 180         72 02 125         72 11 160         72 21 160         72 21 160         73 05 160         73 05 160 T         73 05 160 T         73 06 160         73 70 180         73 71 180         73 72 180         73 74 180         74 01 140         74 01 200         74 02 140         74 02 140         74 02 160         74 02 180	92 92 92 92 97 97 97 257 97 205 100 100 100 99 99 99 99 99 99 99 99 99	76 12 125         76 22 125         76 81 125         77 01 115         77 01 130         77 02 115 ESD         77 02 120 H         77 02 130 H         77 02 135 H         77 02 135 H         77 12 115 ESD         77 12 115 ESD         77 21 15 ESD         77 21 15 ESD         77 22 115 ESD         77 22 115 ESD         77 32 115 ESD	96 96 239 239 240 241 241 241 241 241 239 240 239 240 239 239 240 239 239 240 239 240 239 240 239 240 239 240 241 241 241 241 241 241 241 241 241 241	81 01 250         81 03 250         81 11 250         81 13 250         81 19 230         83 10 010         83 10 015         83 10 020         83 10 040         83 20 015         83 20 015         83 30 005         83 30 010         83 30 015         83 30 020         83 30 020         83 30 020         83 60 015         83 60 015         83 60 010         83 60 010         83 61 010         83 61 015	128 128 128 128 126 126 126 126 126 126 126 126 126 127 127 127 127 127 127 127 127 127 127	87 03 180 87 03 250 87 03 300 87 05 250 87 05 300 87 11 250 87 21 250 87 21 250 87 21 300 87 22 250 87 26 250 87 26 250 87 41 250 87 41 250 88 01 180 88 01 250 88 01 300 88 02 180 88 02 250 T 88 02 250 T 88 02 300	1117 117 117 117 119 119 120 120 120 120 121 207 115 121 123 123 123 123 124 123 123 123 123 123	91 71 160 91 92 180 91 92 180 92 02 53 92 02 54 92 02 55 92 08 78 ESD 92 08 79 ESD 92 12 52 92 22 04 92 22 04 92 22 06 92 22 07 92 22 12 92 22 13 92 22 35 92 23 05 92 23 05 92 24 01 92 24 34 92 27 61 92 27 61 92 27 62 92 27 62 92 27 62	146 144 249 249 253 253 249 249 249 250 250 250 250 250 250 208 252 208 252 208 252 208
48 41 J11 48 41 J21 48 41 J21 49 11 A0 49 11 A1 49 11 A2 49 11 A2 49 11 A3 49 11 A4 49 21 A01 49 21 A11 49 21 A21 49 21 A21 49 21 A41 49 31 A0 49 31 A1 49 31 A2 49 31 A3 49 41 A01 49 41 A21 49 41 A21 49 41 A31 50 00 160 50 00 210	75 75 76 76 76 76 76 76 76 76 76 76 76 77 77	68 01 280         68 01 280         69 01 130         69 03 130         70 01 110         70 01 125         70 01 140         70 01 140         70 02 125         70 02 140         70 02 140         70 02 160         70 05 180         70 05 160         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 06 125         70 06 140	87 109 109 94 94 95 94 94 94 95 94 94 95 95 257 94 94 257 94 2257 94	72 01 160         72 01 180         72 02 125         72 11 160         72 21 160         72 21 160         73 02 160         73 05 160         73 05 160         73 05 160         73 05 160         73 05 160         73 06 160         73 72 180         73 72 180         73 72 180         74 01 140         74 01 200         74 02 200         74 02 180         74 02 200	92 92 92 92 97 97 97 257 97 205 100 100 100 99 99 99 99 99 99 99 99 99 99 99	76 12 125         76 22 125         76 81 125         77 01 115         77 01 130         77 02 115 ESD         77 02 120 H         77 02 135 H         77 02 135 H         77 02 135 H         77 11 115         77 12 115 ESD         77 12 115 ESD         77 21 15 ESD         77 22 115 ESD         77 32 120 H         77 32 120 H ESD	96 96 239 239 240 241 241 241 239 241 239 240 239 239 240 239 240 239 240 239 240 239 240 239 240 239 240 241 241 241 241 241 241 241 241 241 241	81 01 250         81 03 250         81 11 250         81 13 250         81 19 230         83 10 010         83 10 015         83 10 020         83 10 040         83 20 010         83 20 015         83 30 005         83 30 010         83 30 015         83 30 020         83 30 020         83 30 020         83 30 015         83 30 020         83 30 010         83 60 010         83 60 010         83 61 010         83 61 020	128 128 128 128 126 126 126 126 126 126 126 126 126 127 127 127 127 127 127 127 127 127 127	87 03 180 87 03 250 87 03 300 87 05 250 87 05 300 87 11 250 87 21 250 87 21 250 87 21 250 87 22 250 87 26 250 87 26 250 87 41 250 87 41 250 88 01 180 88 01 250 88 01 400 88 02 180 88 02 250 T 88 02 250 T 88 02 300 88 02 300 T	1117 117 117 117 119 119 120 120 120 120 121 207 115 121 123 123 123 123 123 123 123 123 123	91 71 160 91 92 180 91 92 180 92 02 53 92 02 54 92 02 55 92 08 78 ESD 92 08 79 ESD 92 08 79 ESD 92 12 52 92 22 04 92 22 06 92 22 07 92 22 07 92 22 12 92 22 13 92 22 35 92 23 05 92 24 01 92 24 34 92 27 61 92 27 61 92 27 62 92 27 62 92 28 69 ESD	146 144 249 249 253 253 249 249 249 250 250 250 250 250 249 250 250 208 252 208 252 208 252 208 252 253
48 41 J11 48 41 J21 48 41 J21 49 11 A0 49 11 A1 49 11 A2 49 11 A2 49 11 A3 49 11 A4 49 21 A01 49 21 A21 49 21 A21 49 21 A21 49 21 A41 49 31 A0 49 31 A1 49 31 A2 49 31 A3 49 41 A01 49 41 A21 49 41 A31 50 00 160 50 00 210 50 00 225	75 75 76 76 76 76 76 76 76 76 76 76 76 76 77 77	68 01 280         68 01 280         69 01 130         69 03 130         70 01 110         70 01 125         70 01 140         70 01 140         70 01 180         70 02 125         70 02 140         70 02 160         70 05 160         70 05 160         70 05 160         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 06 125         70 06 140	87 109 109 94 94 95 94 94 94 95 94 94 95 95 257 94 94 257 94 202 94 202	72 01 160         72 01 180         72 02 125         72 11 160         72 21 160         72 21 160         73 02 160         73 05 160         73 05 160         73 05 160         73 05 160         73 05 160         73 05 160         73 05 160         73 05 160         73 04 160         73 72 180         73 72 180         74 01 160         74 01 200         74 02 100         74 02 140         74 02 140         74 02 200         74 02 200         74 02 200         74 02 200	92 92 92 92 97 97 97 257 97 205 100 100 100 99 99 99 99 99 99 99 99 99 99 99 99 9	76 12 125         76 22 125         76 81 125         77 01 115         77 01 130         77 02 115 ESD         77 02 120 H         77 02 135 H         77 02 135 H         77 02 135 H         77 11 115         77 12 135 H         77 12 15 ESD         77 21 15 ESD         77 21 15 ESD         77 22 115 ESD         77 32 115 ESD         77 32 115 ESD         77 32 120 H         77 32 120 H ESD         77 42 115	96 96 239 239 240 241 241 241 239 241 239 240 239 239 240 239 240 239 240 239 240 239 240 239 240 239 240 239	81 01 250         81 03 250         81 11 250         81 13 250         81 19 230         83 10 010         83 10 015         83 10 020         83 10 020         83 10 020         83 20 010         83 20 015         83 20 020         83 30 005         83 30 010         83 30 010         83 30 020         83 30 020         83 30 020         83 30 020         83 30 010         83 60 010         83 60 010         83 61 010         83 61 020         83 61 020         84 11 200	128 128 128 128 126 126 126 126 126 126 126 126 127 127 127 127 127 127 127 127 127 127	87 03 180 87 03 250 87 03 300 87 05 250 87 05 300 87 11 250 87 19 250 87 21 250 87 21 250 87 22 250 87 26 250 87 26 250 87 41 250 87 41 250 88 01 180 88 01 250 88 01 180 88 01 250 88 02 180 88 02 250 T 88 02 250 T 88 02 300 T 88 02 300 T	1117 117 117 117 119 119 120 120 120 120 121 207 115 121 123 123 123 123 123 123 123 123 123	91 71 160 91 92 180 91 92 180 92 02 53 92 02 54 92 02 55 92 08 78 ESD 92 08 79 ESD 92 08 79 ESD 92 12 52 92 22 04 92 22 06 92 22 07 92 22 07 92 22 12 92 22 07 92 22 13 92 22 35 92 23 05 92 23 05 92 24 01 92 24 34 92 27 61 92 27 62 92 27 62 92 27 62 92 27 62 92 28 70 ESD 92 28 71 ESD	146 144 249 249 253 253 249 249 249 250 250 250 250 250 249 250 250 250 252 208 252 208 252 253 253
48 41 J11 48 41 J21 48 41 J21 49 11 A0 49 11 A1 49 11 A2 49 11 A2 49 11 A3 49 11 A4 49 21 A01 49 21 A21 49 21 A21 49 21 A31 49 21 A41 49 31 A0 49 31 A1 49 31 A2 49 31 A3 49 41 A11 49 41 A21 49 41 A31 50 00 160 50 00 210 50 00 225 50 00 250	75 75 76 76 76 76 76 76 76 76 76 76 76 77 77	68 01 280         68 01 280         69 01 130         69 03 130         70 01 110         70 01 125         70 01 140         70 01 180         70 02 125         70 02 140         70 02 160         70 05 160         70 05 160         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 05 180         70 06 125         70 06 140         70 06 140	87 109 109 94 94 95 94 94 95 94 94 95 95 257 94 257 94 257 94 202 94 202 94	72 01 160         72 01 180         72 02 125         72 11 160         72 21 160         72 21 160         72 51 160         73 05 160         73 05 160         73 05 160         73 06 160         73 72 180         73 72 180         73 72 180         74 01 140         74 01 200         74 02 180         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200	92 92 92 92 97 97 97 257 97 205 100 100 100 99 99 99 99 99 99 99 99 99 99 99 99 9	76 12 125         76 22 125         76 81 125         77 01 115         77 01 130         77 02 115 ESD         77 02 120 H         77 02 135 H         77 02 135 H         77 02 135 H         77 11 115         77 12 135 H         77 12 115 ESD         77 21 15         77 21 15         77 21 15         77 21 15         77 21 15         77 21 15         77 21 15         77 22 115         77 32 115         77 32 115         77 32 120 H         77 32 120 H ESD         77 32 120 H         77 42 115	96 96 239 239 240 241 241 241 239 241 239 240 239 239 240 239 240 239 240 239 240 239 240 239 240 239 240 239 240 239 239 240 239 240 239 239 240 239 239 241 239 239 241 241 241 241 241 241 241 241 241 241	81 01 250         81 03 250         81 11 250         81 13 250         81 19 230         83 10 010         83 10 015         83 10 020         83 10 020         83 10 020         83 20 015         83 20 015         83 20 015         83 30 005         83 30 010         83 30 010         83 30 020         83 30 015         83 30 020         83 30 010         83 30 020         83 30 010         83 30 010         83 30 020         83 30 020         83 30 010         83 30 020         83 30 020         83 60 010         83 60 010         83 61 010         83 61 020         83 61 020         84 11 200         84 21 200	128 128 128 128 126 126 126 126 126 126 126 126 127 127 127 127 127 127 127 127 127 127	87 03 180 87 03 250 87 03 300 87 05 250 87 05 300 87 11 250 87 11 250 87 21 250 87 21 250 87 21 250 87 22 250 87 26 250 87 26 250 87 41 250 88 01 180 88 01 250 88 01 180 88 01 250 88 01 400 88 02 250 T 88 02 250 T 88 02 250 T 88 02 300 T 88 02 300 T 88 02 300 T 88 02 300 T	1117 117 117 117 119 119 120 120 120 120 121 207 115 121 123 123 123 123 123 123 123 123 123	91 71 160 91 92 180 91 92 180 92 02 53 92 02 54 92 02 55 92 08 78 ESD 92 08 79 ESD 92 08 79 ESD 92 22 04 92 22 06 92 22 07 92 22 07 92 22 07 92 22 12 92 22 07 92 22 35 92 23 05 92 23 05 92 24 01 92 24 34 92 27 61 92 27 62 92 27 62 92 27 62 92 27 62 92 28 70 ESD 92 28 71 ESD	146 144 249 249 253 253 249 249 249 249 250 250 250 250 249 249 250 250 252 208 252 208 252 253 253 253 253
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48       41       J11         48       41       J21         48       41       J31         49       11       A0         49       11       A1         49       11       A2         49       11       A2         49       11       A3         49       11       A4         49       21       A01         49       21       A21         49       21       A21         49       21       A41         49       21       A41         49       31       A0         49       31       A2         49       31       A2         49       31       A3         49       41       A11         49       41       A21         49       41       A31         50       00       210         50       00       225         50       00       250         50       00       300         50       01       160         50       01       180	75 75 76 76 76 76 76 76 76 76 76 76 76 76 77 77	68 01 280         68 01 280         69 01 130         69 03 130         70 01 110         70 01 125         70 01 140         70 01 140         70 01 180         70 02 125         70 02 140         70 02 160         70 05 125         70 05 160         70 05 160         70 05 180         70 05 180         70 06 125         70 06 125         70 06 140         70 06 180         70 06 180	87 109 109 94 94 95 94 94 95 94 94 95 94 94 95 95 257 94 94 257 94 257 94 257 94 202 95 204 202	72 01 160         72 01 180         72 02 125         72 11 160         72 21 160         72 51 160         73 02 160         73 05 160         73 05 160         73 05 160         73 05 160         73 05 160         73 05 160         73 05 160         73 72 180         73 72 180         74 01 140         74 01 200         74 01 200         74 02 160         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200         74 02 200         74 02 250         74 02 250         74 02 250	92 92 92 92 97 97 97 257 97 205 100 100 100 100 99 99 99 99 99 99 99 99 99 99 99 99 9	76 12 125         76 22 125         76 81 125         77 01 115         77 01 130         77 02 115 ESD         77 02 120 H         77 02 135 H         77 02 135 H         77 02 135 H         77 12 115 ESD         77 12 115 ESD         77 21 130         77 21 15 ESD         77 22 115 ESD         77 22 115 ESD         77 22 115 ESD         77 22 115 ESD         77 32 120 H         77 32 120 H         77 42 115 ESD         77 42 115 ESD         77 42 115 ESD         77 42 115 ESD         77 42 130         77 42 130         77 42 130         77 42 130         77 42 130         77 42 130         77 52 115 ESD	96 96 239 239 240 241 241 241 239 240 239 240 239 240 239 240 241 241 241 239 240 241 241 239 240 241 239 240 239 240 239 240 239 240 239 240 239 240 239 240 239 240 239 239 240 239 239 240 239 239 241 239 239 241 239 241 239 241 241 239 241 241 241 241 241 241 241 241 241 241	81 01 250 81 03 250 81 11 250 81 13 250 81 13 250 83 10 010 83 10 015 83 10 020 83 10 020 83 10 040 83 20 015 83 20 010 83 20 015 83 20 020 83 30 005 83 30 015 83 30 015 83 30 015 83 30 010 83 30 015 83 30 020 83 60 010 83 60 015 83 60 010 83 61 015 83 61 010 83 61 015 83 61 020 83 61 020 84 11 200 85 01 250 85 51 250 A 85 51 250 AF	128 128 128 128 126 126 126 126 126 126 126 126 127 127 127 127 127 127 127 127 127 127	87 03 180 87 03 250 87 03 300 87 05 250 87 05 300 87 11 250 87 11 250 87 21 250 87 21 250 87 22 250 87 26 250 87 26 250 87 41 250 87 41 250 88 01 180 88 01 250 88 01 300 88 01 400 88 02 250 88 02 250 88 02 250 88 02 250 88 02 300 7 88 03 250 88 03 250 88 05 180 88 05 250	1117 117 117 117 119 120 120 120 120 121 207 121 207 123 123 123 123 123 123 123 123 123 123	91 71 160 91 92 180 91 92 180 92 02 53 92 02 54 92 02 55 92 08 78 ESD 92 08 79 ESD 92 08 79 ESD 92 12 52 92 22 04 92 22 07 92 22 07 92 22 12 92 22 07 92 22 13 92 22 35 92 23 05 92 24 01 92 24 34 92 27 61 92 27 61 92 27 61 92 27 62 92 28 70 ESD 92 28 70 ESD 92 28 71 ESD 92 28 71 ESD 92 28 72 ESD 92 28 72 ESD	146 144 249 249 253 253 249 249 249 249 250 250 250 250 250 250 250 252 253 253 253 253 253 253 253 253
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92 37 64	252	95 36 250	158	97 43 E US	171	97 49 94	178	97 90 21	187	97 99 333	191	98 01 11	215
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92 44 42	251	95 36 280	158	97 49 05	172	97 49 95	174	97 90 23	186	97 99 335	191	98 01 13	215
92 52 23	250	95 36 280	211	97 49 06	172	97 49 95	178	97 90 24	186	97 99 336	191	98 01 14	215
92 58 74 ESD	253	95 36 315 A	160	97 49 07	172	97 49 95	179	97 90 25	187	97 99 337	191	98 01 15	215
92 64 43	251	95 36 315 A	212	97 49 08	172	97 50 01	176	97 90 26	188	97 99 338	191	98 01 16	215
92 64 44	251	95 36 320	159	97 49 09	172	97 51 10	176	97 91 01	174	97 99 339	191	98 01 17	215
92 67 63	208	95 36 320	212	97 49 10	172	97 51 12	177	97 91 02	175	97 99 350	191	98 01 18	215
92 67 63	252	95 39 038	161	97 49 11	172	97 52 04	178	97 99 001	189	97 99 351	191	98 01 19	215
92 69 84	251	95 39 250	158	97 49 14	172	97 52 05	178	97 99 010	189	97 99 352	191	98 01 22	215
92 70 46	251	95 39 250	211	97 49 15	172	97 52 06	178	97 99 011	189	97 99 353	191	98 01 24	215
92 72 45	251	95 39 280	158	97 49 16	172	97 52 08	178	97 99 020	189	97 99 354	191	98 03 04	215
92 78 77 ESD	253	95 39 280	211	97 49 18	172	97 52 09	178	97 99 021	189	97 99 355	191	98 03 05	215
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92 88 73 ESD	253	95 39 315 A 01	212	97 49 20	172	97 52 13	178	97 99 030	189	97 99 357	191	98 03 07	215
92 94 91	252	95 39 315 A 02	160	97 49 23	172	97 52 14	177	97 99 050	189	97 99 358	191	98 03 08	215
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94 10 185	137	95 39 320 01	212	97 49 25 1	174	97 52 23	178	97 99 071	189	97 99 371	191	98 03 11	215
94 15 215	133	95 39 320 02	159	97 49 26	173	97 52 30	179	97 99 090	189	97 99 372	191	98 03 12	215
94 19 185	137	95 39 320 02	212	97 49 26 1	174	97 52 33	179	97 99 091	189	97 99 373	191	98 03 13	215
94 19 215	133	95 39 720	161	97 49 27	173	97 52 34	179	97 99 092	189	97 99 374	191	98 03 055	215
94 19 215	133	95 39 870	161	97 49 27 1	174	97 52 35	179	97 99 110	189	97 99 375	191	98 04 08	216
94 35 215	133	95 41 165	154	97 49 30	173	97 52 36	179	97 99 111	189	97 99 376	191	98 04 10	216
95 02 21	134	95 61 150	163	97 49 35	173	97 52 37	179	97 99 112	189	97 99 377	191	98 04 13	216
95 03 160 SB	134	95 61 190	162	97 49 40	173	97 52 38	179	97 99 130	189	97 99 378	191	98 04 17	216
95 05 140	135	95 62 190	162	97 49 44	173	97 52 50	179	97 99 131	189	97 99 390	191	98 04 19	216
95 05 155 SB	156	95 62 190 T	162	97 49 50	173	97 52 63	181	97 99 150	189	97 99 391	191	98 04 22	216
95 05 165	156	95 62 190 T	257	97 49 54	173	97 52 63 DG	181	97 99 151	189	97 99 392	191	98 05 13	216
95 05 185	135	95 71 445	163	97 49 59	173	97 52 64	181	97 99 170	190	97 99 393	191	98 05 17	216
95 05 190	135	95 71 600	163	97 49 59 1	174	97 52 65	181	97 99 171	190	97 99 394	191	98 05 19	216
95 06 230	156	95 77 600	163	97 49 60	173	97 52 65 A	181	97 99 172	190	97 99 395	191	98 07 250	214
95 06 230	208	95 77 600	213	97 49 61	173	97 52 65 DG	181	97 99 173	190	97 99 396	191	98 13 20	216
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95 12 165	154	95 79 600	213	97 49 64	173	97 53 08	183	97 99 176	190	97 99 399	191	98 13 40	216
95 12 165 T	154	95 81 600	163	97 49 65	173	97 53 09	183	97 99 177	190	98 00 1/2"	214	98 13 50	216
95 12 165 T	257	95 89 600	163	97 49 65 1	174	97 53 14	182	97 99 178	190	98 00 1/4"	214	98 13 60	216
95 12 200	155	97 00 215 A	166	97 49 65 2	175	97 54 24	184	97 99 179	190	98 00 3/4"	214	98 14 05	216
95 12 500	157	97 21 215	166	97 49 66	173	97 54 25	184	97 99 180	190	98 00 3/8"	214	98 14 06	216
95 16 165	154	97 21 215 B	166	97 49 66 1	174	97 54 26	184	97 99 210	190	98 00 5/8"	214	98 14 08	216
95 16 165	209	97 21 215 C	166	97 49 66 2	175	97 54 27	184	97 99 211	190	98 00 5/16"	214	98 15 05	216
95 16 200	155	97 22 240	166	97 49 66 4	173	97 59 06	176	97 99 212	190	98 00 07	214	98 15 06	216
95 16 200	210	97 32 240	166	97 49 66 6	173	97 59 12	177	97 99 213	190	98 00 7/16"	214	98 15 08	216
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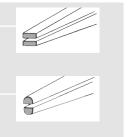
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# **BASIC SHAPES OF THE JAWS**

flat jaws

half-round jaws



round jaws

# JOINT CONNECTIONS



Forged-in joint axleThe rivet is part of one handle (forged from one piece)high stability for highest strain

long service I fe





# **TYPES OF JOINTS**

#### Lap joint

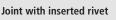
The two plier halves lie on top of each other but are not milled out.

#### Single joint

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.



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).



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



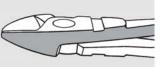
**Gripping Pliers** (flat-, long-nose and water pump pliers etc.)

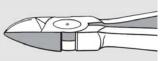


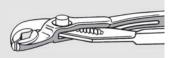
**Combined Pliers** for cutting and gripping (combination, stork beak and radio pliers etc.)

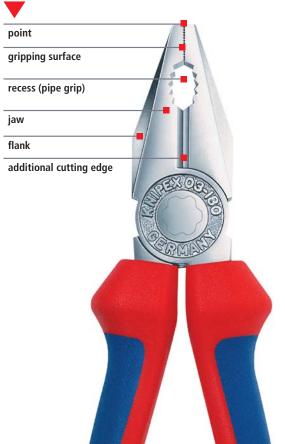


Special Pliers for special applications, e.g. notching or punching different types of materials (sheet-metal n bbler, tile nibbling pincers etc.)



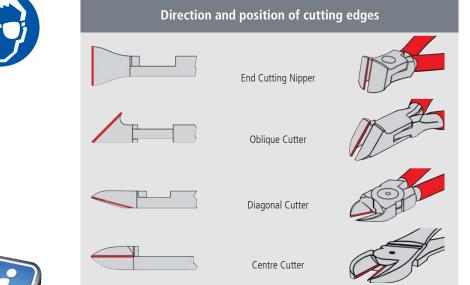






## **Safety instruction**

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



#### Cutting edge shapes DIN ISO 5742



#### with bevel (outside bevel)

with small bevel (outside bevel)

with very small bevel (outside bevel)

> without bevel (outside bevel)

> > flush cut















WIRE CLASSES

	Material examples	Type of wire	Tensile st N/mm²	rength kp/mm ²
lacksquare	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

# **Care Tips**

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.

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



#### 282

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

# **CUTTING CAPACITIES**

Article no						page
	Length	ø mm	ø mm	ø mm	ø mm	
61 0	200	1.0 - 6.0	4.0	3.5	3.0	108
62 12	120	03-1.0	0.7			243
64 0	115	2.0	1.0	0.6		243
64 11	115	1.4	0.8			243
64 12	115	2.0	0.8	0.5		243
64 22	115	0.8				243
64 32	120	1.5	1.0	0.5		243
64 42	115	1.5	1.0	0.5		243
64 52	115	1.3				243
64 62	120	0.6				243
64 72	120	1.5				243
67 0	140	4.0	3.1	2.0	1.5	108
	160	4.5	3.4	2.5	2.0	108
	200	5.0	3.8	3.0	2.5	108
68 01	160	4.0	2.8	2.3		87 / 109
	180	4.0	3.2	2.5		87 / 109
	200	4.0	3.5	2.8		87 / 109
	280	4.5	4.0	3.2		87 / 109
69 0	130	0.4 - 2.0	1.3	1.0	0.8	109
70	110	3.0	2.0	1.2		94
	125	3.0	2.3	1.5		94 / 202
	140	4.0	2.5	1.8		94 / 202
	160	4.0	3.0	2.0		94 / 202
	180	4.0	3.0	2.5		94 / 202
71	200	6.0	5.2	4.0	3.6	102
73 0	160	4.8	3.8	2.7	2.2	97 / 205
73 7	180	5.5	4.6	3.2	3.0	100
74 0	140		3.1	2.0	1.5	99
	160		3.4	2.5	2.0	99 / 205
	180		3.8	2.7	2.2	99 / 205
	200		4.2	3.0	2.5	99 / 205
	250		4.6	3.5	3.0	99 / 205
74 91	250	5.0	5.0	3.8	3.5	101
75 02	125	0.2 - 1.3	1.0	0.6	0.4	238
75 12	125	0.2 - 1.3	1.0	0.6	0.4	238
75 22	125	0.2 - 1.3	0.9	0.4	0.3	238
75 52	125	0.2 - 0.8	0.5	0.3		238
76 01	125	0.4 - 3.0	2.3	1.5	0.6	96

Article no.						page
	Length	ømm	ø mm	ø mm	ø mm	
76 03/05	125	0.4 - 2.5	1.8	1.0	0.6	96
76 12	125	0.4 - 2.5	1.8	1.0	0.6	96
76 22	125	0.4 - 2.5				96
76 81	125	0.4 - 1.7	1.3	0.8		96
77 01/02	115	0.3 - 1.6	1.2	0.6		239
	130	0.3 - 2.0	1.5	0.8		239
77 11/12	115	0.3 - 1.6	1.2	0.6		239
77 21	115	0.3 - 1.3	1.0			239
	130	0.3 - 1.6	1.3			239
77 22	115	0.3 - 1.3	1.0			239
	130	0.3 - 2.0	1.5			239
77 32	115	0.3 - 1.3	1.0	0.5		239
77 42	115	0.3 - 1.3	0.8			239
	130	0.3 - 1.6	1.3			239
77 52	115	0.3 - 1.0	0.8	0.5		239
77 72	115	0.3 - 0.8				239
78 03/13	125	0.2 - 1.6	1.0			235
78 23	125	0.2 - 1.0	0.6			235
78 31/41	125	0.2 - 1.0				235
78 61/71	125	0.2 - 1.6	1.2			235
78 81/91	125	0.2 - 1.6	1.2	0.6		235
79 02	120	0.2 - 1.4	1.0	0.6		236/23
79 02	125	0.2 - 1.7	1.3	0.7		236/23
79 12	125	0.3 - 1.7	1.3	1.0	0.6	236/23
79 22	120	0.1 - 1.3	0.8			236/23
79 22	125	0.1 - 1.7	1.0			236/23
79 32	125	0.2 - 1.5	1.1	0.6		236/23
79 42	125	0.1 - 1.5	0.8			236/23
79 52	125	0.2 - 1.3	0.9	0.5		236/23
79 62	125	0.1 - 1.3	0.8			236 / 23
99 0	200		1.8	1.4		88
	220		2.4	1.6		88
	250		2.4	1.6		88
	280		2.8	1.8		88
	300		3.1	1.8		88
99 1	250		3.3	1.8		89
	300		3.8	2.0		89

# **SYMBOLS**

	flat jaws	≫	with lead catcher
θ	half-round jaws	X	angle
8	round jaws		
	flat and pointed jaws		
	box joint		centre cutter
23	bolted joint		cutting edges with bevel
$\square$	smooth gripping surfaces		cutting edges with small bevel
	serrated gripping surfaces		cutting edges with very small bevel
	cross-hatched, knurled gripping surfaces		cutting edges without bevel
MM	with opening spring		for flush cut of soft materials

	electrostatic discharging, dissipative	$\Delta^{L}$		weight	
X\$X	electronics	<b>∢</b> ►		length	
<u>r</u>	VDE tested, also in conformance to GPSG (Equipment and Product Safety Act)		-	oft wire	
<u> </u>	insulated according to IEC 60900, usable up to 1000 V AC/1500 V DC			medium hard wire hard wire	
습1000 V	insulated according to DIN VDE 0680/1, suitable for the application up to 1000 V AC / 1500 V DC		Ľ	iano wire u + Al multi-conductor cable,	
CE	conforms to a European directive		-	blid and multi-stranded	
	mechanically tested in accordance with the equipment and product	Fe		on	
Ŕ	safety act WEEE marking (Waste Electrical and Electronic Equipment Directive)		S	bbon cable teel wire armoured able (SWA)	

Check out an excellent selection of pliers we offer on our website.