

# AVIATION RANGE



## Pliers Wrenches

Pliers and a wrench in a single tool

- replaces the need for sets of metric and imperial spanners
- adjustable tightening tool
- also excellent for gripping, holding, pressing and bending workpieces
- smooth jaws for damage free installation of plated fittings
- 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



Article No.	EAN 4003773-	Adjustment positions	 Inch	 mm	 mm
86 03 150	069676	14	1	27	150
86 03 180	035466	13	1 3/8	35	180
86 03 250	033837	17	1 3/4	46	250
86 03 300	041429	22	2 3/8	60	300
86 03 400	077312	25	3 3/8	85	400
86 05 150	069928	14	1	27	150
86 05 180	047162	13	1 3/8	35	180
86 05 250	047841	17	1 3/4	46	250

## Cobra® – Hightech Water Pump Pliers

- 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



87 01 250

Article No.	EAN 4003773-	Adjustment positions	∅ Inch	∅ mm	mm	mm
87 01 125	069935	13	1	27	27	125
87 01 150	060116	11	1 1/4	32	30	150
87 01 180	022015	18	1 1/2	42	36	180
87 01 250	022022	25	2	50	46	250
87 01 300	034087	30	2 3/4	70	60	300
87 02 180	042396	18	1 1/2	42	36	180
87 02 250	040316	25	2	50	46	250
87 02 300	029144	30	2 3/4	70	60	300
87 03 180	005667	18	1 1/2	42	36	180
87 03 250	043805	25	2	50	46	250
87 03 300	041382	30	2 3/4	70	60	300
87 05 250	005681	25	2	50	46	250
87 05 300	014126	30	2 3/4	70	60	300



## Cobra® ES – Water Pump Pliers extra-slim

- particularly good access to the workpiece due to very slim construction of head and joint area
- ideal for service, maintenance and equipment repair
- long, narrow jaws



Article No.	EAN 4003773-	Adjustment positions	∅ Inch	∅ mm	mm	mm
87 51 250	061267	19	1 1/4	32	34	250



## KNIPEX Minis in belt pouch

- KNIPEX Minis as "little helpers" in the practical belt pouch
- 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-	Content
00 20 72 V01	070832	86 03 150 Pliers Wrenches 87 01 125 Cobra® Water Pump Pliers
00 20 72 V02	075851	74 01 160 High Leverage Diagonal Cutter 87 01 150 Cobra® Water Pump Pliers



## Multiple Slip Joint Spanner

PATENTED

- 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
- quick tightening of bolted connections using ratchet action
- fine adjustment for optimum adaptation to different sizes of workpieces and a comfortable handle width
- replaces a set of wrenches, ideal for tightening locknuts

Article No.	EAN 4003773-	Adjustment positions	Inch	mm	mm
87 41 250	054566	15	3/8 - 1 1/4	10 - 32	250



## Structure of KNIPEX Article Number

Basic Model e.g.: Combination Pliers	Style e.g.: straight	Finish e.g.: head polished, handles black atramentized	Length/Size e.g.: 200 mm
<b>03</b>	<b>0</b>	<b>0</b>	<b>200</b>

## Finish of Pliers

0	1	2	3	4	5	6	7
pliers black atramentized, head polished	head polished, handles plastic coated	head polished, handles with multi-component grips	pliers chrome plated, handles plastic coated	pliers chrome plated	pliers chrome plated, handles with multi-component grips	pliers chrome plated, handles insulated with multi-component grips, VDE-tested DIN EN 60900 / IEC 60900 1000 V	pliers chrome plated, handles with dipped insulation, VDE-tested DIN EN 60900 / IEC 60900 1000 V

## Alligator® – Water Pump Pliers

- self-locking on pipes and nuts: no slipping on the workpiece and low handforce required
- robust construction, insensitive to dirt; particularly suitable for outdoor work
- Chrome vanadium electric steel, forged, oil-hardened



Article No.	EAN 4003773-	Adjustment positions	Ø Inch	Ø mm	Inch	mm
88 01 180	035480	9	1 1/2	42	36	180
88 01 250	022992	9	2	50	46	250
88 01 300	034094	9	2 3/4	70	60	300

# Alligator®

## Alligator® XL

The classic now also in 400 mm length

- 11-notch adjustment for a gripping capacity up to 3 1/2"
- 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
- 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 double guide
- guard prevents operators' fingers being pinched
- Chrome vanadium electric steel, forged, oil-hardened



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 1/2")** than comparable pipe wrenches. With their handy length of 400 mm, there is a place for KNIPEX Alligator® XL in every tool box.

Article No.	EAN 4003773-	Adjustment positions	Ø Inch	Ø mm	Inch	mm
88 01 400	075844	11	3 1/2	90	95	400

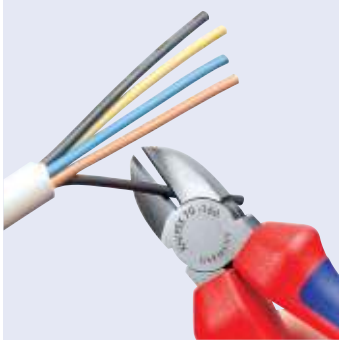




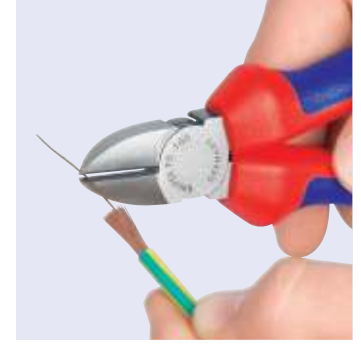


## Diagonal Cutters

- 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



Article No.	EAN 4003773-	Ø mm	Ø mm	Ø mm	mm
70 02 140	023098	4.0	2.5	1.8	140
70 02 160	034032	4.0	2.8	2.0	160
70 02 180	034049	4.0	3.0	2.5	180



## High Leverage Diagonal Cutter

- 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, oil-hardened

### Art.-No. 74 12 160 / 74 12 180

with opening spring; to be activated if required

### Art.-No. 74 21 ...

12° angled head offers clearance for gripping

Article No.	EAN 4003773-	Ø mm	Ø mm	Ø mm	mm
74 02 160	023081	3.4	2.5	2.0	160
74 02 180	023074	3.8	2.7	2.2	180
74 02 200	040309	4.2	3.0	2.5	200
74 02 250	042402	4.6	3.5	3.0	250
74 12 160	065111	3.4	2.5	2.0	160
74 12 180	060192	3.8	2.7	2.2	180
74 21 160	034322	3.4	2.5	2.0	160
74 21 180	069973	3.8	2.7	2.2	180
74 21 200	050483	4.2	3.0	2.5	200
74 21 250	045021	4.6	3.5	3.0	250



74 02 180



74 12 160



74 21 200

= 70 mm



20% less effort required compared to conventional diagonal cutters of the same length





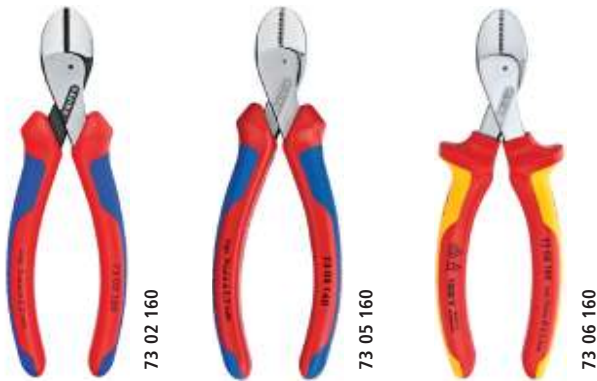
## X-Cut – Compact Diagonal Cutters

Compact and light. Powerful and precise.

Cuts 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 coordination of cutting-edge angle and leverage ratio with laterally staggered pivot point
- large opening width for thicker cables
- cuts precisely, even through fine copper wires
- compact, low-weight construction
- Chrome vanadium heavy-duty steel, forged, oil-hardened

Product video

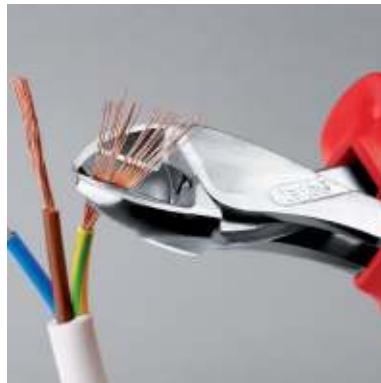


KNIPEX X-Cut



Article No.	EAN 4003773-		Ø mm	Ø mm	Ø mm	Ø mm	Ø mm	Ø mm	↔ mm
73 02 160	075127		4.8	3.8	2.7	2.2	12		160
73 05 160	075134		4.8	3.8	2.7	2.2	12		160
73 06 160	075141		4.8	3.8	2.7	2.2	12		160

**40% less effort required**  
compared to diagonal cutters of the same length



**Required hand force**  
for a nail with Ø 3 mm

- 18 Kg with KNIPEX TwinForce® The reapplying cutter\*
- 33 Kg with KNIPEX X-Cut®
- 39 Kg with High Leverage Diagonal Cutter
- 52 Kg with Diagonal Cutter

\*with 1000V safety icon

## THE WORLD OF THE KNIPEX DIAGONAL CUTTERS

<p><b>KNIPEX TwinForce®</b></p> <p><b>NEW</b></p> <p>The reapplying cutter</p> <p>Double-hinged design Hand force is multiplied by 39</p>	<p><b>KNIPEX X-Cut®</b></p> <p><b>NEW</b></p> <p>Box joint: greatest stability with little weight Hand force is multiplied by 16</p>	<p><b>High Leverage Diagonal Cutter</b></p> <p>Forged on hinged joint for robust use Hand force is multiplied by 13</p>	<p><b>Diagonal Cutter</b></p> <p>Long cutting edges for cutting cable; also precise enough for the finest stranded wires Hand force is multiplied by 9</p>
---	--	---	--

## TwinForce®

The superior High-Leverage Diagonal Cutter with patented double joint

PATENTED

- 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, oil-hardened

Product video



Article No.	EAN 4003773-	Ø mm	Ø mm	Ø mm	Ø mm	mm
73 71 180	074762	5.5	4.6	3.2	3.0	180
73 72 180	074779	5.5	4.6	3.2	3.0	180



73 72 180

Extremely easy cutting with little strain: cuts again 50% easier than the tried and tested KNIPEX high leverage diagonal cutters.

## 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 0.7–1.5 mm<sup>2</sup> and 2.5 mm<sup>2</sup>
- crimp die for wire-end ferrules 0.5–2.5 mm<sup>2</sup>
- cable shears with (induction-hardened) precision cutting edges for copper and aluminium cables up to 5 x 2.5 mm<sup>2</sup> / dia. 15 mm
- slim dimensions for easy access
- bolted joint: precise, zero backlash operation of pliers
- High-grade special tool steel, forged, oil-hardened



13 82 200

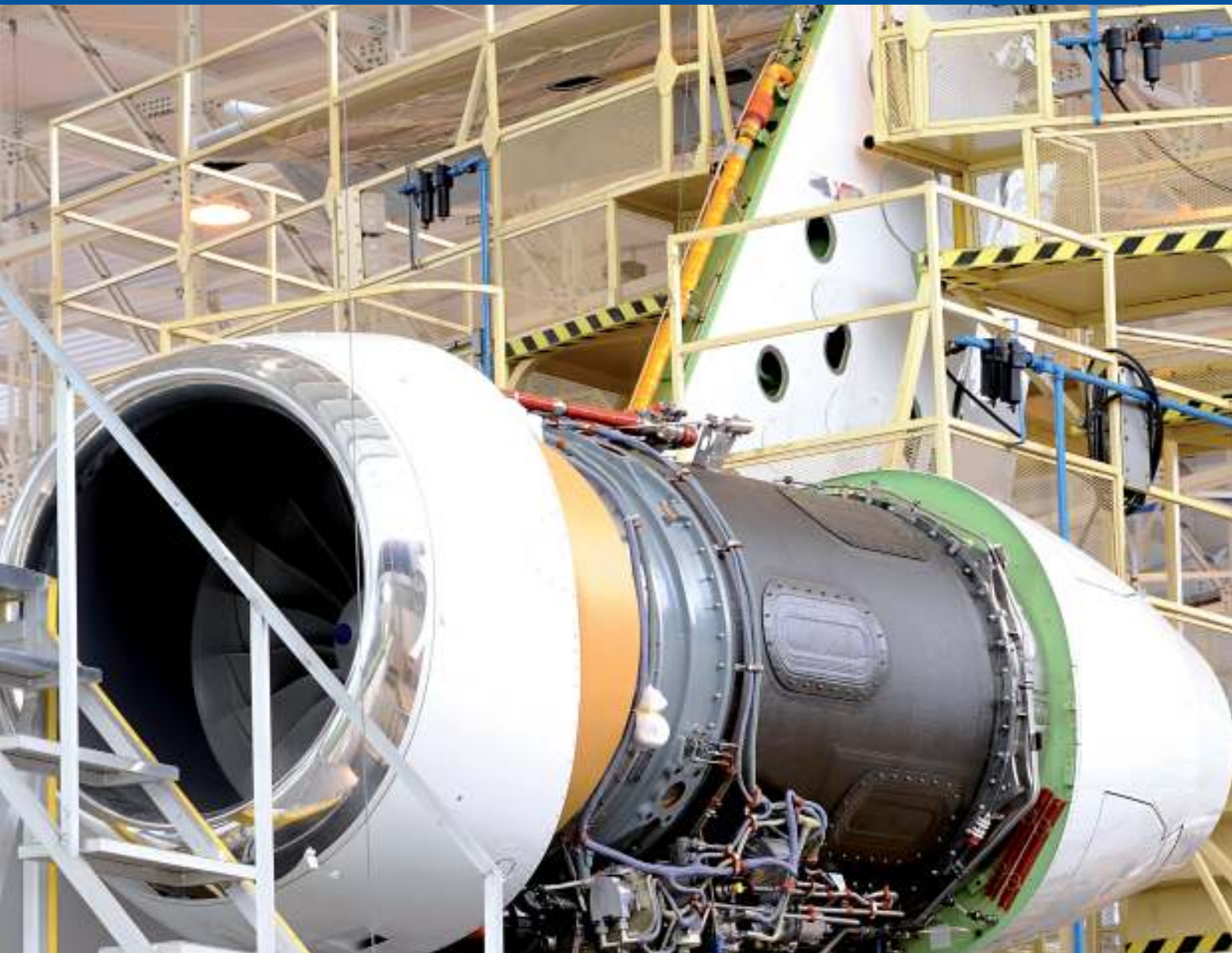


Article No.	EAN 4003773-	Handles	Cutting capacities		
			Ø mm	Ø mm <sup>2</sup>	mm
13 81 200	075240	plastic coated	15	50	200
13 82 200	075080	multi-component grips	15	50	200
13 86 200	075097	insulated with multi-component grips, VDE-tested	15	50	200

Product video

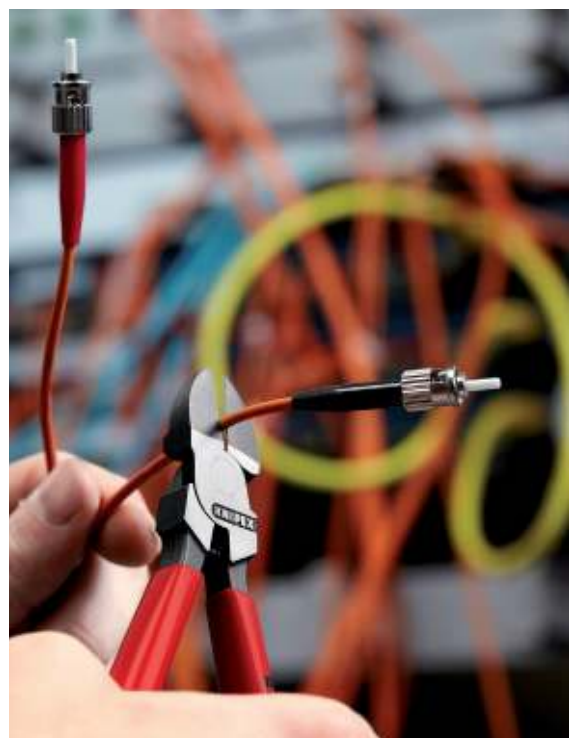






### Diagonal Cutter for fibre optics

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



Article No.	EAN		Head	Handles	↔ mm
72 51 160	028031	MM	polished	plastic coated	160

## Wire Rope Shears

double function: neat cutting, precise crimping

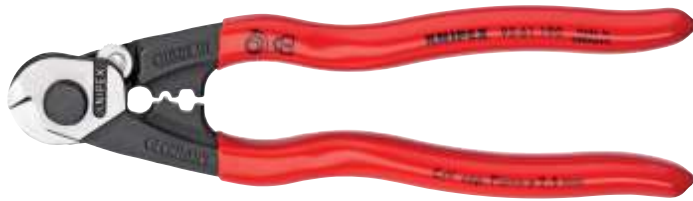
- with two crimping dies for end caps on Bowden cable sheaths and end ferrules for traction cables
- comfortable work thanks to handy, slim design and internal opening spring
- bolted joint for precise blade guidance, re-adjustable
- high leverage for reduced effort
- cutting-edge hardness approx. 64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



Crimping of the end caps on the Bowden cable sheath



Crimping of the end ferrule onto the traction cable



95 61 190

Article No.	EAN 4003773-		Cutting capacities				↔ mm
			⊕ Ø mm	⊙ Ø mm	◐ Ø mm	○ Ø mm	
95 61 190	040651	⌌	7.0	6.0	4.0	2.5	190
95 62 190	071976	⌌	7.0	6.0	4.0	2.5	190



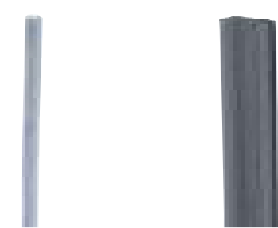
Precise guiding through a bolted joint

Transport lock and restricted opening

Crimp profiles

Crimp profiles for traction cables

Crimp profiles for end caps





### Cable Shear

- 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



Article No.	EAN	Ø mm	Ø mm <sup>2</sup>	AWG	mm
95 11 165	4003773-040323	15	50	1/0	165



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

### Cable Shear with twin cutting edge

- 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 Ø 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



Article No.	EAN	Cutting capacities		AWG	mm
		Ø mm	Ø mm <sup>2</sup>		
95 11 200	4003773-043928	20	70	2/0	200



**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.

## Precision Insulation Strippers with adapted blades

PATENTED

- 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 06

Article No.	EAN 4003773-		Stripping capacities mm <sup>2</sup>	AWG	↔ mm
12 12 06	049005	⌘	0.14 - 6.00	26 - 10	195
12 12 10	049012	⌘	2.5 - 10.0	13 - 7	195
12 19 06	049043		1 set of spare blades for 12 12 06		
12 19 10	049050		1 set of spare blades for 12 12 10		

Registered trademark:

Radox® – HUBER+SUHNER AG; Kapton® – E. I. du Pont de Nemours and Company



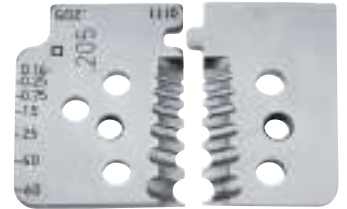
Positive stripping thanks to precise shape of the blades



Precise cutting of the insulation to a complete extent



Automatic stripping of the insulation



Two pairs of blades for form-fit stripping

## KNIPEX MultiStrip 10 Automatic Insulation Stripper

- fully automatic adjustment to commercially used single-, multi- and fine-stranded conductors with standard insulation throughout the entire capacity range from 0.03 to 10.0 mm<sup>2</sup>
- no manual fine adjustment required, no damage to the conductors
- the clamping jaws made of steel with integrated cutting edge hold the cable in a way that prevents slipping without damaging the remaining insulation
- with wire cutter for copper and aluminium conductors, multi-stranded up to 10 mm<sup>2</sup> and single-stranded up to 6 mm<sup>2</sup>
- 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



Article No.	EAN 4003773-		Stripping capacities mm <sup>2</sup>	AWG	↔ mm
12 42 195	054580	⌘	0.03 - 10.0	32 - 7	195
12 49 21	057581		Spare blades block for 12 42 195		
12 49 23	057604		Spare blades block for 12 42 195		



Steel restrain jaws with cutting edges avoid skidding of the cable



Precise stripping from 0.03 to 10.0 mm<sup>2</sup> without re-adjustment





**Pipe Gripping Pliers**  
for tube fittings and connectors

- ideal for tightening and releasing plastic pipe fittings, round union nuts, etc. starting from 25 mm dia. e.g. Cannon-plugs
- with plastic jaws for careful installation
- 4-position adjustable slip joint
- Chrome vanadium electric steel, forged, oil-hardened



**81 13 230**  
with plastic jaws for careful installation  
up to 60 mm dia.

Article No.	EAN 4003773-	Working Capacity Ø mm	↔ mm
81 13 230	050117	25 - 60	230
81 19 230	050124	2 pairs of plastic jaws for 81 13 230	

## Precision Electronics Diagonal Cutters ESD



### 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



79 02 120 ESD



79 02 125 ESD



79 22 120 ESD



79 22 125 ESD



79 32 125 ESD



79 42 125 ESD



- 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
- electrically discharging handles – dissipative
- 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
- forged from chrome vanadium ball-bearing steel

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

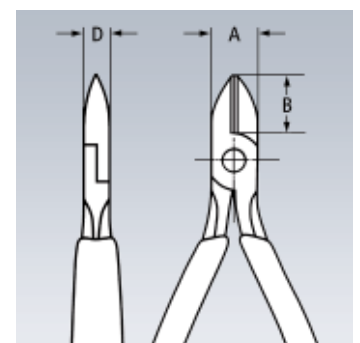
**79 02 125 ESD / 79 22 125 ESD**  
round head

**79 12 125 ESD**  
specially for cutting through hard wire and piano wire

**79 32 125 ESD / 79 42 125 ESD**  
pointed head

**79 52 125 ESD / 79 62 125 ESD**  
pointed head; with lead catcher – no uncontrolled loss of cut wire ends

Article No.	EAN 4003773-	Wire type	Cutting capacities				Dimensions			
			Ø mm	Ø mm	Ø mm	Ø mm	B mm	A mm	D mm	mm
79 02 120 ESD	061595	⚡	0.2-1.4	1.0	0.6		6.5	9.0	6.5	120
79 02 125 ESD	061519	⚡	0.2-1.7	1.3	0.7		10.0	11.0	6.5	125
79 12 125 ESD	071389	⚡	0.3-1.7	1.3	1.0	0.6	10.0	11.0	6.5	125
79 22 120 ESD	061618	⚡	0.1-1.3	0.8			6.5	9.0	6.5	120
79 22 125 ESD	061533	⚡	0.1-1.7	1.0			10.5	11.0	6.5	125
79 32 125 ESD	061557	⚡	0.2-1.5	1.1	0.6		10.5	11.0	6.5	125
79 42 125 ESD	061571	⚡	0.1-1.5	0.8			10.5	11.0	6.5	125
79 52 125 ESD	065159	⚡	0.2-1.3	0.9	0.5		11.0	11.0	6.5	125
79 62 125 ESD	065166	⚡	0.1-1.3	0.8			11.0	11.0	6.5	125



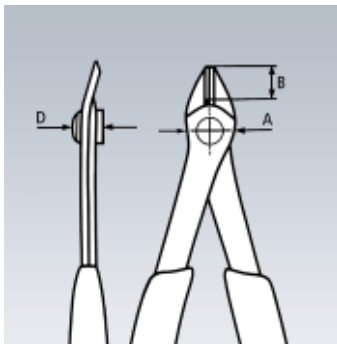


### Electronic Super Knips® ESD

- precision pliers for ultra fine cutting work, e.g. in electronics and fine mechanics
- electrically discharging handles – dissipative
- ground, very sharp cutting edges without bevel for flush cutting
- precision shaped tips cut wires resting on a board from 0.2 mm dia.
- joint with stainless steel rivet
- extremely smooth movement for minimum operator fatigue
- with opening spring and opening limiter



78 03 125 ESD



**78 03 125 ESD**  
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 61 125 ESD**  
cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC; special tool steel, burnished

**78 71 125 ESD**  
with lead catcher – no uncontrolled loss of cut wire ends; cutting edges additionally induction hardened, cutting edge hardness approx. 64 HRC; special tool steel, burnished



Article No.	EAN 4003773-		Cutting capacities		Dimensions			
			Ø mm	Ø mm	B mm	A mm	D mm	↔ mm
78 03 125 ESD	025146		0.2 - 1.6	1.0	9.0	13.5	7.5	125
78 13 125 ESD	025153		0.2 - 1.6	1.0	9.0	13.5	7.5	125
78 61 125 ESD	025184		0.2 - 1.6	1.2	9.0	13.5	7.5	125
78 71 125 ESD	025191		0.2 - 1.6	1.2	9.0	13.5	7.5	125

### Electronics Diagonal Cutters with inserted carbide metal cutting edges – ESD

- 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
- 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
- electrically discharging handles – dissipative

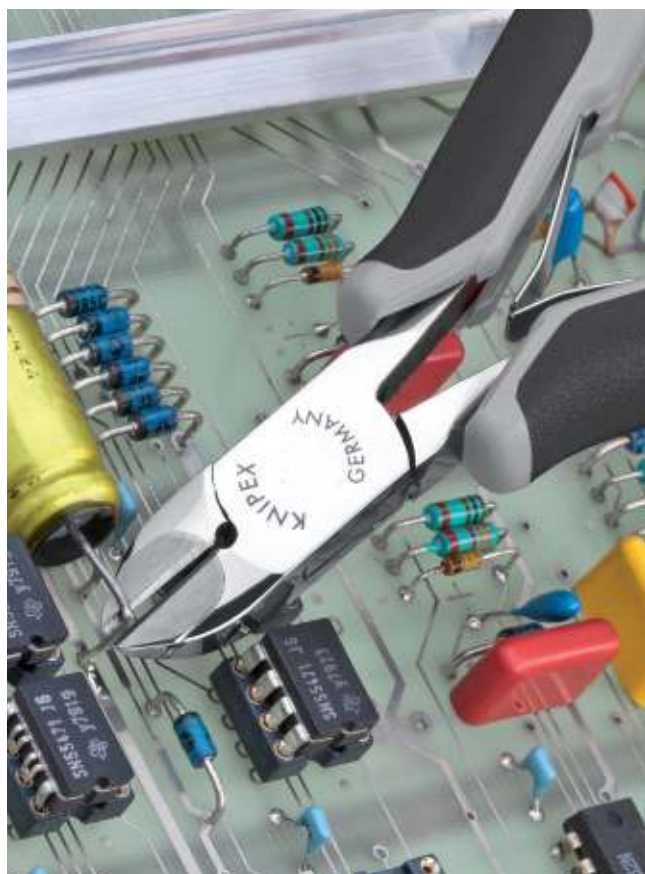
77 02 120 H ESD / 77 02 135 H ESD



77 32 120 H ESD



Article No.	EAN 4003773-		Cutting capacities				↔ mm
			Ø mm	Ø mm	Ø mm	Ø mm	
77 02 120 H ESD	075813		2.0	1.4	1.0	0.6	120
77 02 135 H ESD	075837		2.2	1.6	1.2	0.8	135
77 32 120 H ESD	075820		1.6	1.0	0.6	0.2	120



## Precision Tweezers ESD

- Chrome nickel steel: stainless, anti-magnetic (18/10), very popular electronics quality
- ESD coating: non-reflective black, with a surface resistance of approx.  $10^5$  Ohm
- tips non-reflective brushed
- gripping surfaces matt finished for optimum grip



92 08 78 ESD



92 08 79 ESD



92 28 69 ESD



92 28 70 ESD



92 28 71 ESD



92 28 72 ESD



92 38 75 ESD



92 58 74 ESD



92 58 74 ESD



92 88 73 ESD

Article No.	EAN 4003773-		Finish	↔ mm
92 08 78 ESD	054634	$\angle 45^\circ$	for SMD-technology*; angled tips; smooth gripping surfaces	120
92 08 79 ESD	054641		shaped to grip horizontal cylindrical components of 1.0 mm dia.; smooth gripping surfaces; serrated handles	120
92 28 69 ESD	054771		straight pattern; strong tip; smooth gripping surfaces	130
92 28 70 ESD	054788		straight pattern; fine tip; smooth gripping surfaces	110
92 28 71 ESD	054795		needle-pointed tips; straight pattern; smooth gripping surfaces	110
92 28 72 ESD	054801		American shape, solid; long tips; straight pattern; smooth gripping surfaces	135
92 38 75 ESD	054863	$\angle 45^\circ$	sickle-shaped tips; smooth gripping surfaces	120
92 58 74 ESD	054900		round tips, approx. 2 mm wide; straight pattern; smooth gripping surfaces	120
92 78 77 ESD	054979		round tips, approx. 3.5 mm wide; straight pattern; knurled gripping surfaces; serrated handles	145
92 88 73 ESD	054993		rectangular tips, approx. 0.9 mm wide; gripping surfaces with fine transverse serration	130

\* SMD-technology: technique for soldering surface mounted components on printed circuit boards without using holes.

## Flat Nose Pliers and Snipe Nose Pliers of plastic insulating

- fully insulating to reduce risk of short circuit
- plastic material, fibreglass reinforced
- handles with soft plastic zone for better grip



Article No.	EAN 4003773-		Description	↔ mm
98 62 01	073956	$\Delta$ 1000 V	Flat Nose Pliers	180
98 62 02	073963	$\Delta$ 1000 V	Snipe Nose Pliers	220



### Mechanics' Pliers

- high bending strength of the pliers jaws/tips
- gripping surfaces cross-hatched, knurled
- Vanadium electric steel; forged, oil-hardened



38 11 200



38 15 200



38 21 200



38 31 200



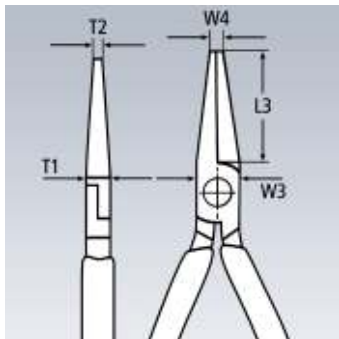
38 41 190



38 71 200



38 91 200



**Style 7**  
 angled, half-round jaws, suitable for pulling split pins; for gripping at points that are difficult to access



Article No.	EAN 4003773-	Grip Pattern	Style	Dimensions					↔ mm
				L3 mm	W3 mm	T1 mm	W4 mm	T2 mm	
38 11 200	035169	⊖ ⊗	1	73.0	17.5	9.5	3.0	2.5	200
38 15 200	039594	⊖ ⊗	1	73.0	17.5	9.5	3.0	2.5	200
38 21 200	035176	∠40° ⊖ ⊗	2	73.0	17.5	9.5	3.0	2.5	200
38 25 200	043669	∠40° ⊖ ⊗	2	73.0	17.5	9.5	3.0	2.5	200
38 31 200	040712	⊖ ⊗	3	73.0	17.5	9.5	3.0	2.5	200
38 35 200	017134	⊖ ⊗	3	73.0	17.5	9.5	3.0	2.5	200
38 41 190	017141	▭ ⊗	4	50.0	18.0	8.0	2.0	8.0	190
38 45 190	043676	▭ ⊗	4	50.0	18.0	8.0	2.0	8.0	190
38 71 200	017202	∠70° ⊖ ⊗	7	73.0	17.5	9.5	3.0	2.0	200
38 91 200	017219	∠45° ⊖ ⊗	9	73.0	17.5	9.5		2.5	200
38 95 200	017233	∠45° ⊖ ⊗	9	73.0	17.5	9.5		2.5	200



## Snipe Nose Side Cutting Pliers (Stork Beak Pliers)

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 electric steel; forged, oil-hardened



26 22 200

Article No.	EAN 4003773-		Cutting capacities		Dimensions						
			Ø mm	Ø mm	L3 mm	L4 mm	T1 mm	W3 mm	W4 mm	T2 mm	↔ mm
26 12 200	023142		3.2	2.2	73.0		9.5	17.5	3.0	2.5	200
26 22 200	023135	∠40°	3.2	2.2	73.0	23.0	9.5	17.5	3.0	2.5	200

## Assembly Pliers

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



Article No.	EAN 4003773-	Dimensions					
		L3 mm	W3 mm	T1 mm	W4 mm	T2 mm	↔ mm
28 01 200	044468	33.0	13.5	10.5	4.0	10.5	200

## Precision Circlip Pliers

to assemble external circlips on shafts

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



49 11 A2



49 21 A21

### 49 31 / Style 3

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

### 49 41 / Style 4

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

Article No.	EAN 4003773-		Style	Size of shaft Ø mm	Tips-Ø ca. mm	↔ mm
49 11 A0	048718		1	3 - 10	0.90	140
49 11 A1	048725			10 - 25	1.25	140
49 11 A2	048732	∩		19 - 60	1.80	180
49 11 A3	048749			40 - 100	2.25	225
49 11 A4	048756			85 - 140	3.20	320
49 21 A01	048817		2	3 - 10	0.90	130
49 21 A11	048824			10 - 25	1.25	130
49 21 A21	048831	∠90°		19 - 60	1.80	165
49 21 A31	048848			40 - 100	2.25	210
49 21 A41	048855			85 - 140	2.80	305
49 31 A0	061748		3	3 - 10	0.90	140
49 31 A1	073895	∩		10 - 25	1.25	140
49 31 A2	073901			19 - 60	1.80	180
49 41 A01	061755	∩	4	3 - 10	0.90	130





## Precision Circlip Pliers

to assemble internal circlips into bores

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



48 11 J2

48 21 J21

### Style 1

DIN 5256 C, straight tips

### Style 2

DIN 5254 B; 90° angled tips

### Style 3

DIN 5256 C, straight tips

## 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!



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



Style 3: with closing limiter



KNIPEX-Precision Circlip Pliers: Fit circlips without distortion; easy and quick assembling



Circlips are held securely: The large supporting surfaces and the position of the tips make it more difficult for the rings to bounce off.

Article No.	EAN 4003773-	Style	Size of bore Ø mm	Tips-Ø ca. mm	↔ mm
48 11 J0	048510	1	8 - 13	0.90	140
48 11 J1	048527		12 - 25	1.25	140
48 11 J2	048534		19 - 60	1.80	180
48 11 J3	048541		40 - 100	2.25	225
48 11 J4	048558		85 - 140	2.30	320
48 21 J01	048619	2 ∠90°	8 - 13	0.90	130
48 21 J11	048633		12 - 25	1.25	130
48 21 J21	048640		19 - 60	1.80	165
48 21 J31	048657		40 - 100	2.25	210
48 21 J41	048664		85 - 140	3.20	305
48 31 J1	073864	3	12 - 25	1.25	140
48 31 J2	073871		19 - 60	1.80	180







### Aviation-Minis

- Pliers Wrench with roughened jaws (Art.-No. 86 05 150 S02)
- Diagonal Cutter with specially rounded edges for working on cable harnesses (Art.-No. 79 02 125 S1)
- made of hard-wearing polyester fabric for two pliers
- with hook and loop fastener
- with a second hook-and-loop fastener inside the flap; so the flap can be fastened in an open position and does not disturb the workflow (quiver function)
- with elastic side holder for small flash lamp, pen or suchlike

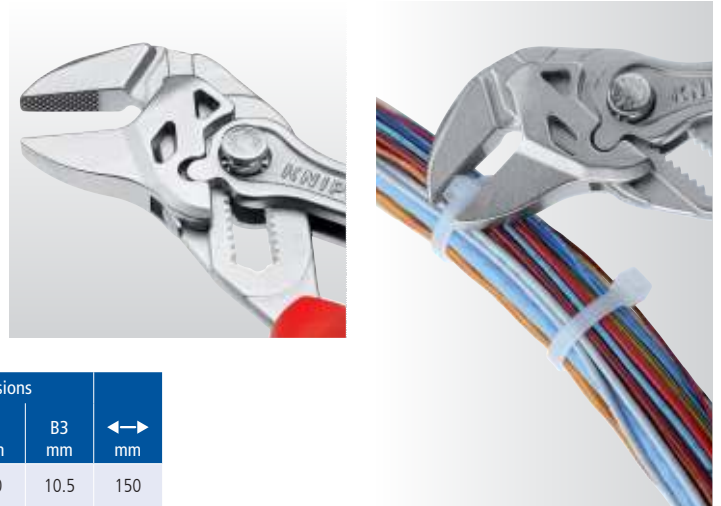


Article No.	EAN 4003773-		↔ mm
00 19 72 V01	072768	<b>Aviation-Minis</b>	
		86 05 150 S02 KNIPEX Aviation Pliers Wrenches	150
		79 02 125 S1 Diagonal Cutter for works on cable harnesses	125

### KNIPEX Aviation Pliers Wrenches

Art.-No. 86 05 150 S02

- for opening plastic cable connectors
- no sharp edges at the tool
- roughened jaws for a better grip
- unintentional damage to the cable/insulation is reliably avoided
- plastic cable ties are opened with high pressing strength
- controlled detachment of the plastic cable tie
- no sections / waste can drop down



Article No.	EAN 4003773-		Dimensions						
			Inch	mm	Adjustment positions	B1 mm	B2 mm	B3 mm	↔ mm
86 05 150 S02	071785		1	27	14	4.7	7.0	10.5	150

### Diagonal Cutter

for works on cable harnesses

Art.-No. 79 02 125 S1

- all edges on the head are rounded
- reduces the risk of damage to the insulation when making corrections to cable harnesses



with very small bevel

Article No.	EAN 4003773-		Cutting capacities			Dimensions			
			Ø mm	Ø mm	Ø mm	B mm	A mm	D mm	↔ mm
79 02 125 S1	061519		0.2-1.7	1.3	0.7	11.0	6.5	61	125

### Collar cracker for aluminium collars

- to force off aluminium break-away nuts (collars) e.g. on Hi-Lok® screw fasteners (Not suitable for steel or titanium collars!)
- adjustment at the touch of a button directly on the workpiece
- high pressing strength with increase to 10 times the hand's power
- Chrome vanadium electric steel, forged, oil-hardened

#### Art.No. 86 05 180 S4:

cutting edge with an angle of 45 degrees - for better accessibility



86 05 250 S4



86 05 250 S5

Article No.	EAN 4003773-		Adjustment positions	Dimensions			
				B1 mm	B2 mm	B3 mm	↔ mm
86 05 180 S4	069089		13	5.0	8.0	12.0	180
86 05 250 S4	069102	∠45°	14	8.0	8.0	14.0	250
86 05 180 S5	069096		13	5.0	8.0	12.0	180
86 05 250 S5	069119		14	8.0	8.0	14.0	250

Hi-Lok® is a registered trademark of the Hi-Shear Corporation



### Bolt End Cutting Nippers

high lever transmission

#### Collar cracker for steel and titan collars

- to force off break-away nuts (collars) made of aluminium, steel and titanium e.g. on Hi-Lok® screw fasteners
- less effort required and better handling
- exceptional cutting capacity due to high-leverage joint
- with large contact surface on the handles for better allotment of pressure and more comfort at work
- Vanadium electric steel; forged, oil-hardened



Article No.	EAN 4003773-		↔ mm
61 02 200 S5	067047	∠85°	200





## Miniature wire cutter and strand trimming tool

- cutting tool (miniature) for wire cutting
- hand actuated- for wire sizes 26 through 16, acc. to the aerospace standard AS6173/4
- for cutting aircraft wiring sizes 26 through 16, such as AS22759 with tin, nickel and silver coated conductors of copper, and high strength and ultra high strength copper alloy
- can reach "tight" aircraft repair locations

8000 1001 3



## Microstripper for PTFE insulated cables

- for stripping fine-strand PTFE-insulated copper wires, sizes 0.005 to 0.14 mm<sup>2</sup> (AWG 40-26)
- fixed stop for cross-sections ranges 0.02/0.01 mm<sup>2</sup> and 0.008/0.005 mm<sup>2</sup> (AWG 34/36 and 38/40)
- swivel stop for cross-sections ranges 0.14/0.08 mm<sup>2</sup> and 0.06/0.03 mm<sup>2</sup> (AWG 26/28 and 30/32)

Art. No.	Capacity mm <sup>2</sup>	AWG	Length mm	Weight g
8007 5001 3	0.005–0.14	40–26	135	75



## Insulation stripper for special applications

patentiert  
patented

- special hand tool with length stop for high-quality stripping and dismantling of single and multi-wire cables ranging from 0.03 to 16 mm<sup>2</sup>
- no pinching or deforming of cable ends by a special cutting mode
- customized blade designs on request
- automatic release after operation
- solid construction, easy to handle
- ergonomically designed 2-component grips
- over 100 blade sets for different cable cross-sections and insulations are available, see [www.rennsteig.com](http://www.rennsteig.com) for more details or just ask us



Art. No.	Range of applications	Length mm	Weight g
708 200 3	Tool without stripping blades, burnished, with 2-component grips	200	410





## Four-indent crimping tool "SelectorCrimp"

- special hand tool for crimping turned male and female contacts
- indenter geometry acc. to M22520/7-01
- relevant crimp depth set by an 8-position selector
- selector settings acc. to MIL22520/7-01
- a multi-position interchangeable locator, adaptable to the appropriate contact type, ensures the correct position of the particular contact to be crimped
- existing turrets acc. to MIL22520/7-01 fit to the tool
- Go-No go gauge for accurate calibration to MIL standard available
- small opening and clothing width
- ergonomic design and reduced handforce



8728 0000 6



8738 0000 6



Adapter ring for positioner to MIL 22520/1-01 and Rennsteig locators with up to double the capacity



Typical MIL contacts

Art. No.	Finish	Profile	Capacity		Max. contact dia. mm	Weight g	corr.
			mm <sup>2</sup>	AWG			
8728 0000 6	Tool without locator		0.08–1.3	28–16	4.0	850	M22520/7-01
8738 0000 6			0.03–0.56	32–20	3.6	850	M22520/2-01
8758 0000 6			0.14–3.3	26–12	5.5	1220	M22520/1-01

To order the right locator for your application please contact us.



## Aluminium crimp tool AWG 24 to 12

- special hand tools for crimping turned pin or socket contacts with flexible aluminium cables
- 3 multi-gauge hand tools and one mono-gauge tool are able to crimp AD cables ABS 0949 into contacts ABS1380 and ABS1381 from AWG 24 to 12
- synchronous crimping (conductor and insulation crimp) during the same cycle of closing and opening the pliers
- tools perform an 8-indent crimp on the conductor and a hex crimp (24/18 AWG) respectively a bihex crimp (16/14 AWG) on the insulation

Art. No.	Capacity AWG	Length mm	Weight g
8500 0000 6	24/22	190	660
8510 0000 6	20/18	190	620
8520 0000 6	16/14	190	620
8530 0000 6	12	200	860



8520 0000 6



## Airline Service Kit

- tools to cut, strip and crimp, extraction and insertion tools, gauges and accessories for maintenance and repair of aircraft aluminium wiring
- available and safely stored in a protective plastic case

### Info

Art. No. 8500 0001 61  
sale to aircraft manufacturer and subcontractors only



## Four-indent crimping tool "DigiCrimp" MIL

patentiert  
patented

- digital crimp tool for crimping turned male and female contacts with an indenter geometry acc. to M22520/1-01 (8756) and M22520/7-01 (8726)
- indents adjustable in 0.01 mm increments, with digital reading
- multifunctional digital display, with settings shown in mm, inches or MIL selector settings acc. to M22520/7-01 (8726) and M22520/1-01 (8756)
- calibration and wear monitoring by means of enclosed gauge
- Go-No go gauge for accurate calibration to MIL standard usable
- electronic wear monitoring with warning function
- reliable crimping with force lock and synchronous crimp indenters movement
- multiple information functions (remaining life, number of calibrations, serial number)
- Rennsteig turrets and MIL turrets likewise usable



8726 0000 6

8756 0000 6

Art. No.	Finish	Profile	Capacity		Length mm	Weight g	corr.
			mm <sup>2</sup>	AWG			
8726 0000 61	Tool with MIL-indenters in plastic case (without locator)		0.08–2.5	28–13	175	820	M22520/7-01
8736 0000 61			0.03–0.5	32–20	175	820	M22520/2-01
8756 0000 61			0.14–6.0	26–10	230	1190	M22520/1-01



Pin locator turret for 8726



Pin locator turret for 8756



All special crimp tools available in a convenient plastic carrying case with gauge and setting reference sheet.

## Four-Mandrel Crimping Pliers for turned contacts

- 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

### Art. 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 pliers in a plastic case with foam insert and standard locator for precise positioning of the contacts

### Art. 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



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



Universal Locator



Article No.	EAN 4003773-		Applications	Capacity mm <sup>2</sup>	AWG	Number of crimping	↔ mm
97 52 65 DG	063216		✘ turned contacts (e.g.: Harting; Ilme; Phoenix; Contact Amphenol; Walther; HTS; Weidmüller)	0.14 - 6.0	25 - 10	1	250
97 52 65 DG A	071990		✘ turned contacts (e.g.: Harting; Ilme; Phoenix; Contact Amphenol; Walther; HTS; Weidmüller)	0.14 - 6.0	25 - 10	1	250
97 59 65 2	071600		Universal Locator				

## KNIPEX-Werk C. Gustav Putsch KG

Oberkamper Strasse 13  
42349 Wuppertal  
Germany

Tel.: +49 (0) 202 – 47 94-0  
Fax: +49 (0) 202 – 47 74 94

info@knipex.de  
www.knipex.com

Your distributor