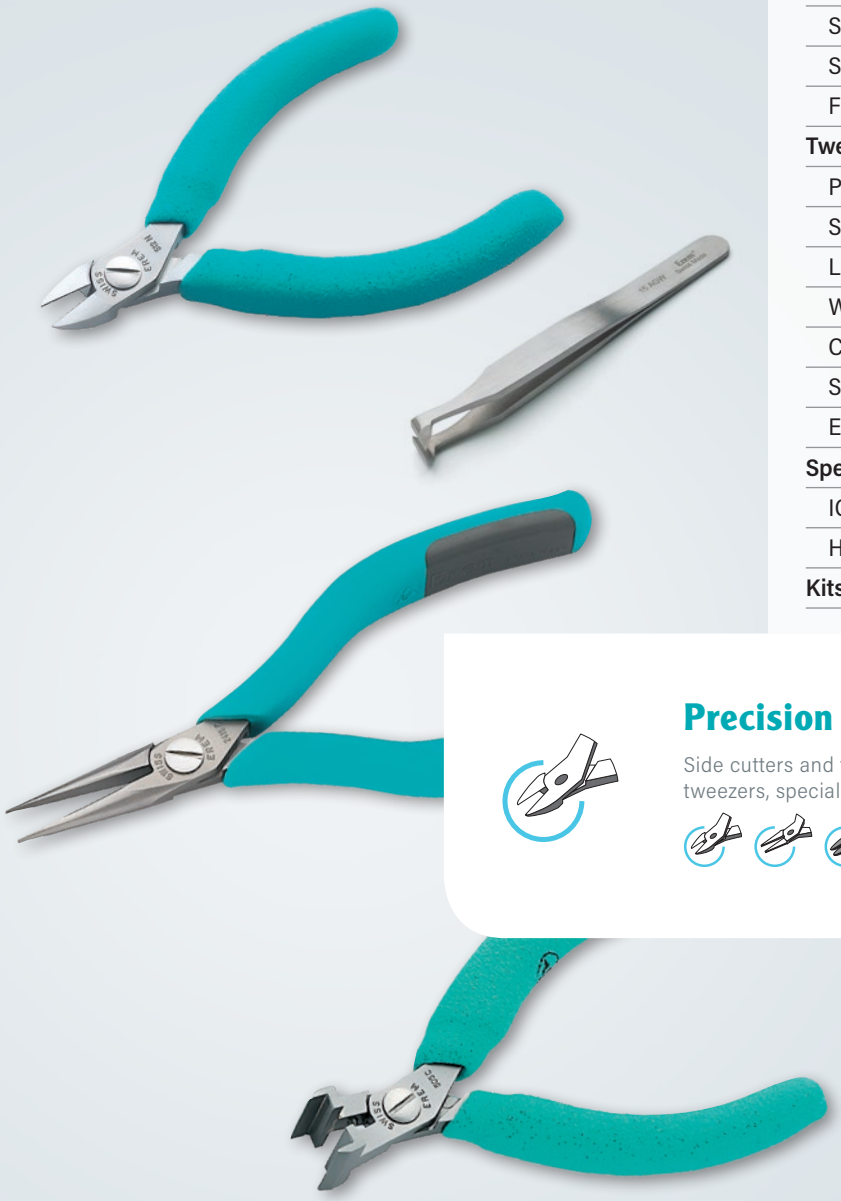
Weller
Erem

Precision tools



Precision Tools Erem®

Side cutters and tip cutters, pliers, tweezers, special Erem tools, toolkits

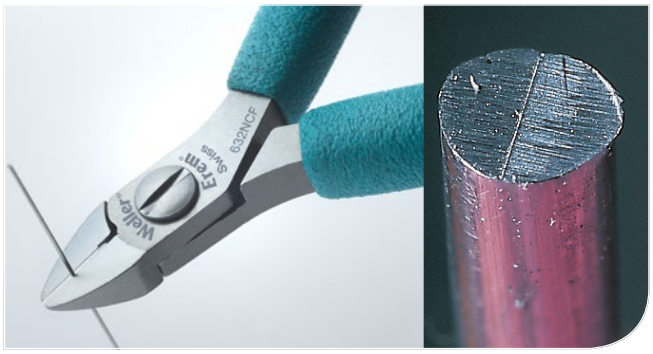
Special applications

Side cutters for use in medical device manufacturing

The 632NCF miniature side cutter is ideally suited for soft material such as silicone tubes in medical device applications, precision connector seals or miniature rubber seals.

The miniature cutter is also the ideal tool for cutting soft synthetic parts, e.g. in the manufacture of hearing aids.

The cutting edges of the 632NCF side cutter are precision-ground to an extremely high level. This enables the cutter to deliver a razor-like full-flush cut.

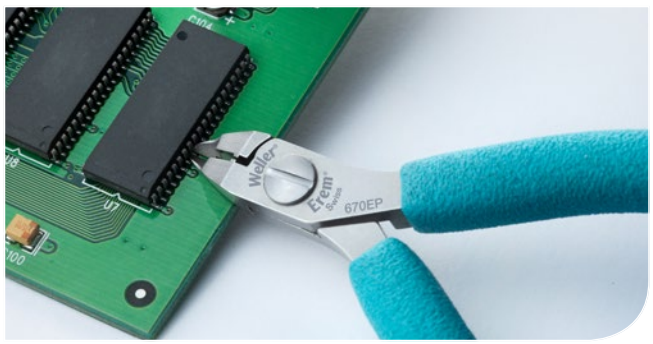


Tip cutters to remove fine pitch SMD ICs

A simple method to remove SMD ICs is to cut each of the individual leads to remove the device and then reflow the joint with a soldering iron and remove the component leads from the board.

The solder left on the board can then be removed with a desoldering tool or desolder braid and a new component fitted.

The 670EP and 670EPF have fine pointed tapered and relieved heads that are able to fit between individual leads and cut them without causing damage to the printed circuit.



Tungsten-carbide cutter for the preparation of cardio-vascular stents

A stent is a vascular-wall prop. It is a lattice-shaped tube made of stainless steel or nickel-titanium. It serves to hold open constricted coronary blood vessels and improves the flow of blood through the vessels.

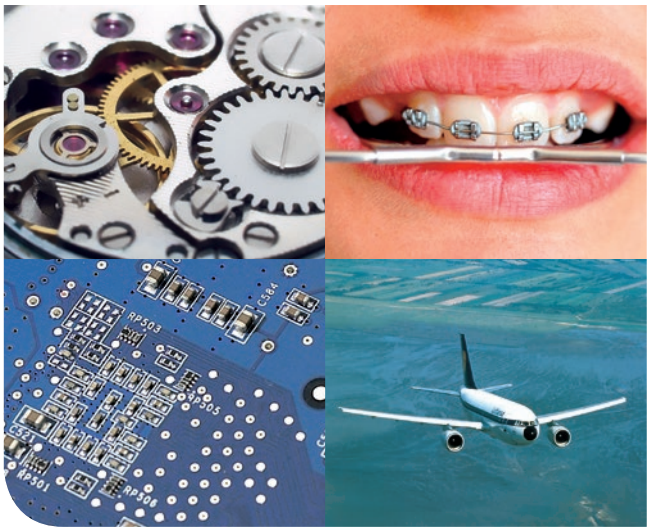
It is important in stent manufacture that the cut end of any wire in the lattice is as flat as possible, otherwise it will be necessary rework the stents.

These side cutters have fine polished carbide cutting blades to accurately cut the lattice and reduce the need for rework.

High-precision side cutters for cutting stainless wires

The 599TFO has wear resistant tungsten-carbide cutting edges and all round capability. It is able to cut VectranTM braided wires, fiber optics, Kevlar® and small stainless steel braids and wires.

A further application lies in telecommunications, i.e. working on fiber-optic cables, Kevlar® silks and piano wires.



The quality and performance of Erem precision tweezers are the result of more than 40 years of development and expertise.

Erem is one of the leaders in the development of high-precision tools for a wide variety of applications in electronics, aeronautical engineering, light engineering, telecommunications, laboratory technology, medicine and the jewelry, watchmaking and goldsmithing industries.

Tweezers for biology and laboratory applications

Erem micro-tweezers are suitable for use in biology (e.g. model 5MBS, 5FSA or M5S).

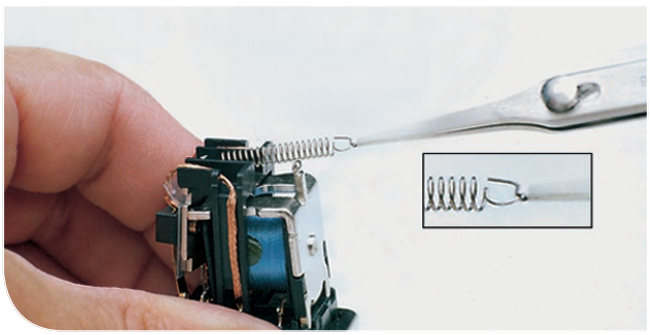
These tweezers with very pointed tips make it possible to access tight spaces and offer excellent visibility when performing precision work and when working under a microscope.

High-precision tweezers are particularly suitable for analysis applications and the handling of tissues, fine threads and other very small objects.

Tweezers for use in the jewelry industry

These stainless steel tweezers with Teflon® coated tips (e.g. type 2ASASLT) are particularly suited for use in the jewelry industry. They are robust and the Teflon® coated tips provide a non-stick surface.

Titanium tweezers type like 3CTA are also ideal for this application. Their light weight maintains fingertip control over extended working periods and their resistance to high temperatures allows them to be used in applications that might use gas flames.



Tweezers for use in light engineering and dental applications

Erem offers special gripping pliers for applications in light engineering. The type 940AS lockable gripping tweezers can withstand a tensile force of 5 kg and can securely hold small wires.

The stainless steel construction allows the tweezers to be sterilized in an autoclave.

Side cutters and tip cutters

FOR ALMOST EVERY APPLICATION

Built-in Erem Magic Spring

The Magic Spring system used in Erem precision tools is unique. It is integral to the cutting head and provides a constant closing and re-opening force.

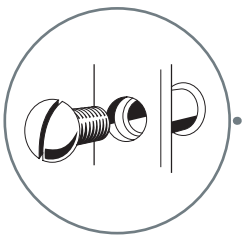
It is highly reliable, makes the tools easy to use and reduces operator fatigue.

- Reduce costs thanks to long life
- Constant spring force
- Guarantees more than 1 million operations

High-precision screw joint

This self locking screw joint system gives a smooth cutting and opening action and ensures that there is no blade overlap or play.

- Smooth jaw action with no play
- Smooth cutting operation with no jaw overlapping



Induction-hardened cutting edges

The cutting blades of Erem cutters are hardened to Rockwell 63-65 HRc by an induction-heating process.

- High durability thanks for special material selection

Special tool steel

Erem electronics tools are made from bright steel.
The special tool steel is made using a unique Swiss processing technique.

- The bright tool steel gives additional strength and toughness to the tools to promote a long service life.

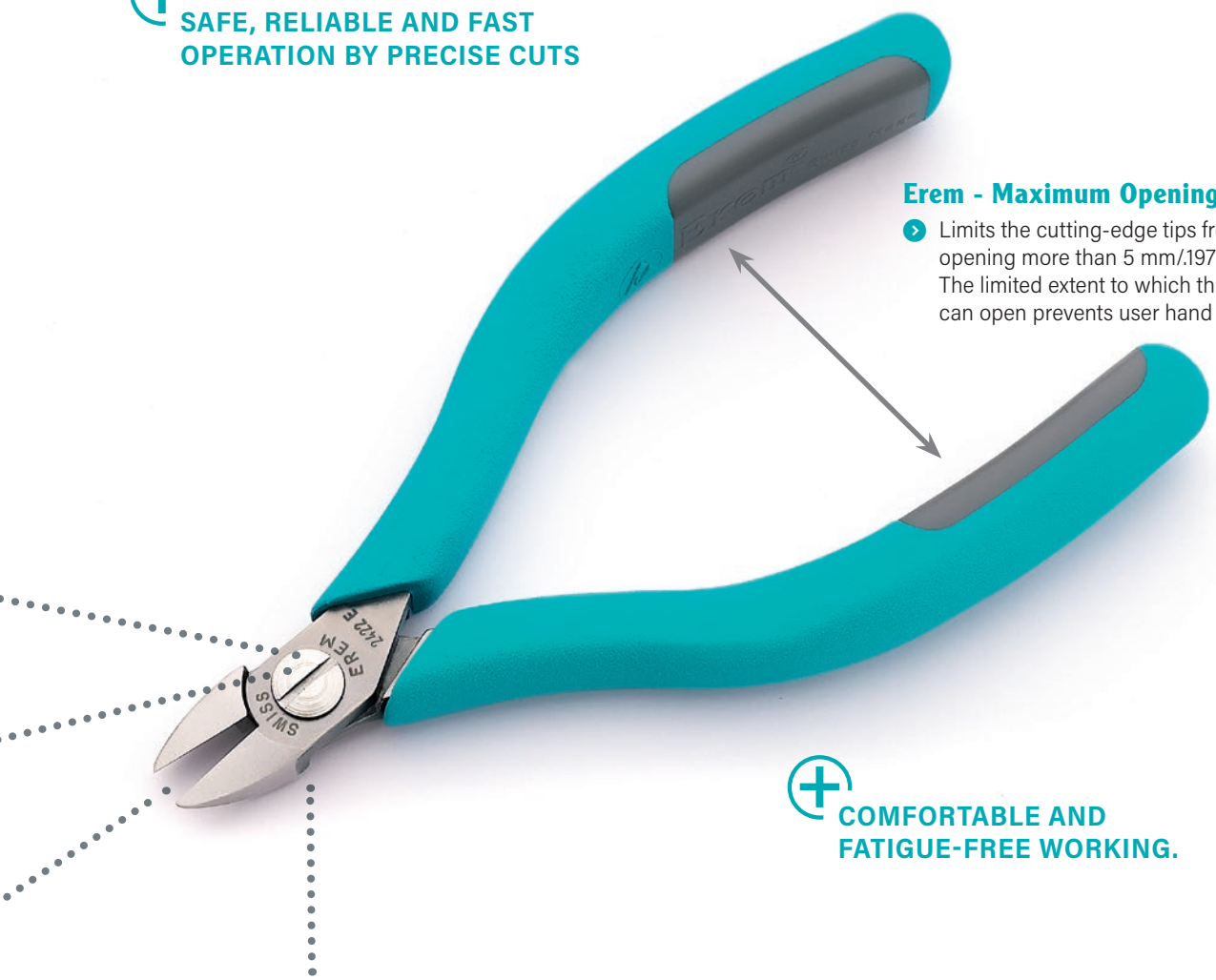
ESD-safe

The interchangeable foam-cushion handles are ESD-safe and are fitted as standard on all Erem cutters and pliers.

Ergonomically shaped handles

- For high comfort, better grip and added safety.

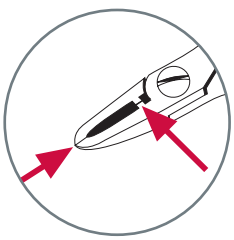
SAFE, RELIABLE AND FAST OPERATION BY PRECISE CUTS



Erem - Maximum Opening Stop

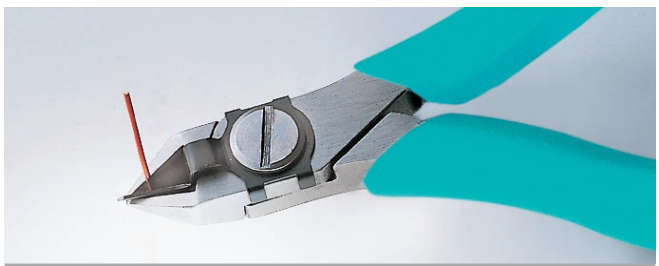
- Limits the cutting-edge tips from opening more than 5 mm/.197 Inch. The limited extent to which the handles can open prevents user hand fatigue.

COMFORTABLE AND FATIGUE-FREE WORKING.



Erem cutting-edge protection for tip cutters

All tip cutters are fitted with a special stop system which prevents the cutting edges from overlapping.



Safety device for holding wire scraps

This safety device for side cutters holds wire scraps securely after cutting. Available on most 500, 600 and 2400 series cutters (oval head). Order suffix "W" e.g. 595EW.

Cut shape

There are three blade options, which determine the shape left on a lead after cutting.

Semi-flush

This cut leaves a pyramidal tip at the end of the wire. It is particularly suitable for standard jobs where the final shape does not play a significant role. Cutters with this cut are suitable for both soft copper wires and very hard wires such as stainless steel.

Flush

This cut leaves a much smaller tip at the end of the wire than the semi-flush cut – without reducing the cutting ability. The cutting edges are finer than on semi-flush cutters. The effort exerted when cutting is less and the load on the component is reduced. Flush wire ends reduce the effort needed to fit components on printed-circuit boards. Erem guarantees precise cutting even after frequent use.

Super full flush

Only Erem offers you a super full flush cut. This cut provides absolutely flush wire ends.
No rework is needed. Cutters with this cut are absolutely precision-ground and sharpened. The effort exerted when cutting is low, as is the load on the component caused by the cut. Soldering tags in soldering-bath procedures are prevented. Cutters of this type are used in applications for microelectronics, space travel or medical technology. These cutters are suitable for soft wires.

Erem vs Competitor

Service

Re-sharpening
Erem is your service partner. All Erem side and tip cutters except those with carbide insert blades can be re-sharpened upto three times. Carriage charges will apply.

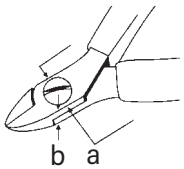
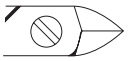
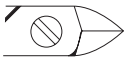
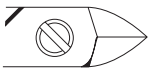
Replacement parts
Erem cutters and pliers and their component parts are warranted against manufacturing defects. Magic springs, precision joint components are available as spare parts.

Choosing the right tool

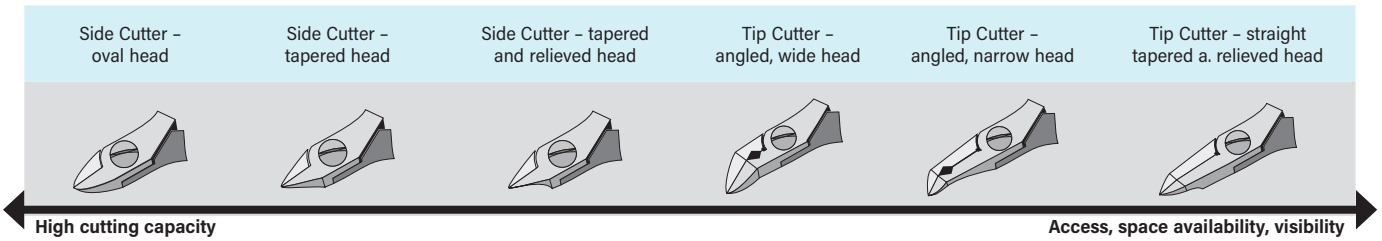
	Micro **Series 600 / 2600**	Medium **Series 2400 MagicSense**	Medium **Series 500**	Maxi **Series 800 / 2800**	**Tungsten-carbide cutters**
	Miniature cutters for fine wires.	Medium-size cutters. Combines robustness, visibility and accessibility. Optimized ergonomic shape and an improved grade of hardness.		The strongest and most robust head size cuts large wire diameters.	
Visibility and accessibility ↑ / High cutting ability ↓					
Tip cutter Straight relieved head • Horizontal and vertical cuts • Cutting in hard-to-reach areas	✓	✓	✓		
Tip cutter Angled narrow head • Precise cuts at different working angles		✓	✓		
Tip cutter Angled wide head • Precise cuts at different working angles		✓	✓		✓
Side cutter Pointed relieved head • Narrowest head shape • Optimum access even to extremely hard-to-reach areas	✓		✓	✓	✓
Side cutter Tapered head • Straight edges and taper to a point • Access to difficult to reach areas without reducing the cutting ability	✓	✓	✓	✓	✓
Side cutter Oval head • Cutting in easy accessible areas • Offers the highest cutting capacity		✓	✓	✓	✓

Choosing the right tool

3 Sizes

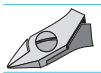
	Micro		Medium		Maxi	
						
	Series 600 / 2600		Series 500	Series 2400	Series 800 / 2800	
Width a	9,0 mm	9,0 mm	11,0 mm	11,0 mm	13,5 mm	13,5 mm
Thickness b	6,0 mm	6,0 mm	6,0 mm	6,0 mm	7,2 mm	7,2 mm

How to choose the right tool?



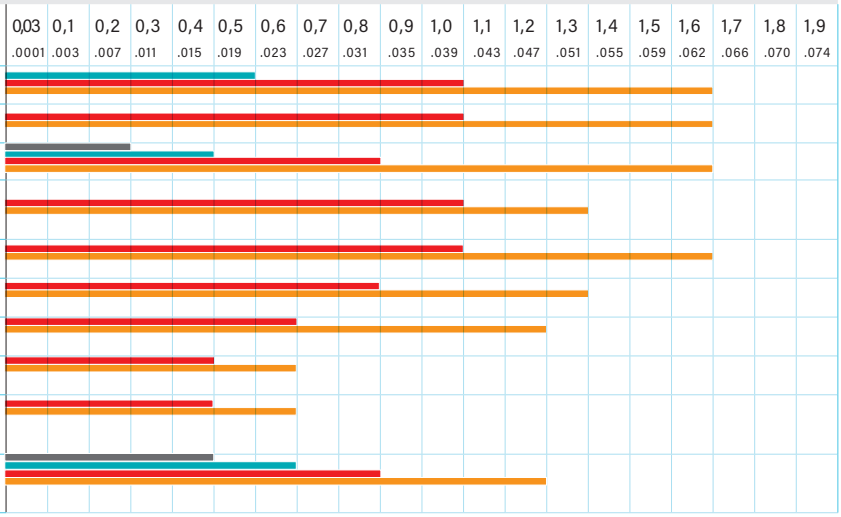
Cutting Capabilities

Piano wire
Hard wire, material 1.4301, tensile strength of wire 1800 MPa
Medium hard wire, material 1.4301, tensile strength of wire 800 MPa
Soft wire, copper, aluminium, tensile strength of wire 250 MPa

Type	Type of Cut	Cutting Capacity
Series 600 Micro & 2600		mm / Inch: 0,03 .0001 · 0,1 .003 · 0,2 .007 · 0,3 .011 · 0,4 .015 · 0,5 .019 · 0,6 .023 · 0,7 .027 · 0,8 .031 · 0,9 .035 · 1,0 .039 · 1,1 .043 · 1,2 .047 · 1,3 .051 · 1,4 .055 · 1,5 .059 · 1,6 .062 · 1,7 .066 · 1,8 .070 · 1,9 .074
 612N 2612N	Semi-flush	
622N 2622N	Flush	
622TX	Flush / Carbide	
632N 2632N	Super Full Flush	
 622NA	Flush	
622NB 2622NB	Flush	
 676E	Flush	
776E	Super Full Flush	
632NCF	Super Full Flush	Only for soft materials: silicone, rubber, etc.
 670E	Flush	
670EP	Flush	
670EPF	Flush	Only for micro pitches under 0.5 mm / .019 Inch

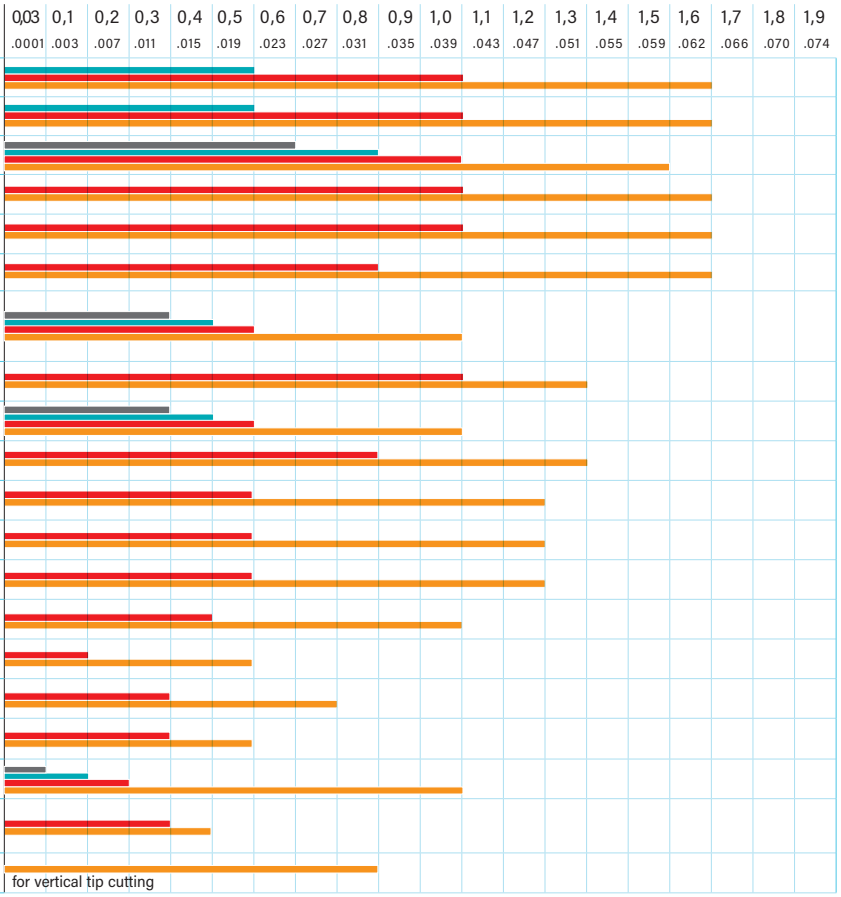
Series 2400 MagicSense

	Type	Type of Cut
	2412E	Semi-flush
	2422E	Flush
	2432E	Super Full Flush
	2477E	Flush
	2403E	Flush
	2404E	Flush
	2482E	Flush
	2475E	Flush
	2470E	Flush
	2476TX2	Flush / Carbide



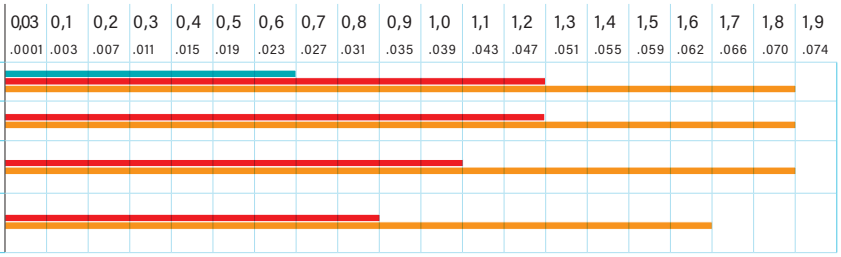
Series 500 Medium

	Type	Type of Cut
	512N	Semi-flush
	512E	Semi-flush
	599T	Semi-flush / Carbide
	522N	Flush
	599E	Flush
	532N	Super Full Flush
	576TX1	Flush / Carbide
	503E	Flush
	503ETST 30°	Flush / Carbide
	503ETST	Flush
	35°	Flush
	555E 40°	Flush
	572E 45°	Flush
	582E 30°	Flush
	45°	Flush
	592E	Flush
	792E	Super Full Flush
	555E	Flush / Carbide
	570E	Flush
	573E	Flush

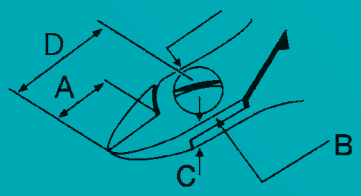


Series 800 Maxi & 2800

	Type	Type of Cut
	812N 2812N	Semi-flush
	822N 2822N	Flush
	886E 2886E	Flush
	884E	Flush



Series 600 Micro



A = Length of cutting edges
B = Head width
C = Head thickness
D = Head length

Side cutter - oval head

4.331 Inch / 110 mm
1.69 oz. / 48 g

- This is the most widely used head shape.
- Fits for all cutting applications where easy access is given

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
612N	Semi-flush	0.354	9	0.354	9	0.236	6	0.590	15	Ø 0,5	Ø 0,8	Ø 1,3
T622N	Flush	0.354	9	0.354	9	0.236	6	0.590	15	-	Ø 0,8	Ø 1,3
632N	Perfectly flush cut	0.354	9	0.354	9	0.236	6	0.590	15	-	Ø 0,7	Ø 1,3

Side Cutter - tapered head

4.331 Inch / 110 mm
48 g

- The jaws of the cutter have straight edges and taper to a point. This head shape allows access to difficult to reach areas but reduces the cutting capacity in comparison to the same size oval head cutter.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
622NA	Flush	0.354	9	0.354	9	0.236	6	0.590	15	-	Ø 0,7	Ø 1,0

Side cutter – pointed relieved head

4.331 Inch / 110 mm
1.69 oz. / 48 g

- This is the narrowest head shape.
- The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Cop-per wire
622NB	Flush	0.354	9	0.39	9.8	0.236	6	0.65	16	-	Ø 0,6	Ø 0,8
676E	Flush	0.354	9	0.354	9	0.236	6	0.590	15	-	Ø 0,6	Ø 0,8
776E	Perfectly flush cut	0.354	9	0.354	9	0.236	6	0.590	15	-	Ø 0,6	Ø 0,8
632NCF	Perfectly flush cut	0.354	9	0.354	9	0.236	6	0.590	15	suitable for precision cuts on soft materials, e.g. small silicone tubes, precision connector seals, miniature rubber seals, soft synthetic parts		

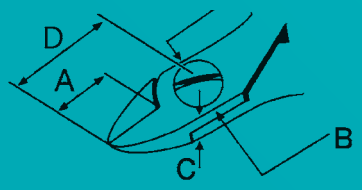
Tip cutter - straight short relieved head

4.331 Inch / 110 mm
1.69 oz. / 48 g

- Suitable for cutting SMD and micro-package contacts.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
670E	Flush	0.118	3	0.354	9	0.236	6	0.709	18	-	Ø 0,5	Ø 0,8
670EP	Flush	0.118	3	0.354	9	0.236	6	0.709	18		Ø 0,5	Ø 0,6
670EPF	Flush	0.118	3	0.354	9	0.236	6	0.709	18	-	Ø 0,4	Ø 0,6

Series 2400 MagicSense



A = Length of cutting edges
B = Head width
C = Head thickness
D = Head length

Side cutter – oval head

5.118 Inch / 130 mm
2.47 oz. / 70 g

- This is the most widely used head shape.
- Fits for all cutting applications where easy access is given
- It is robust and offers the highest cutting capacity.
- Erem cutters and pliers with ergonomic handle. The ergonomic handle and special materials ensure a soft feel, operating comfort and safety.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
2412E	Semi-flush	0.472	12	0.433	11	0.236	6	0.748	19	Ø 0,5	Ø 1,0	Ø 1,6
2422E	Flush	0.472	12	0.433	11	0.236	6	0.748	19	-	Ø 1,0	Ø 1,6
2432E	Perfectly flush cut	0.472	12	0.433	11	0.236	6	0.748	19	-	Ø 0,8	Ø 1,6

Side cutter - tapered

5 Inch / 127 mm
2.469 oz. / 70 g

- The jaws of the cutter have straight edges and taper to a point. This head shape allows access to difficult to reach areas but reduces the cutting capacity in comparison to the same size oval head cutter.
- Erem cutters and pliers with ergonomic handle. The ergonomic handle and special materials ensure a soft feel, operating comfort and safety.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
2477E	Flush	0.472	12	0.433	11	0.236	6	0.742	19	-	Ø 1,0	Ø 1,3

Tip cutter - angled wide head

5 Inch / 127 mm
2.469 oz. / 70 g
30°

- The angled head provides for precise cuts at different working angles.
- Erem cutters and pliers with ergonomic handle. The ergonomic handle and special materials ensure a soft feel, operating comfort and safety.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
2403E	Flush	0.354	9	0.433	11	0.236	6	0.748	19	-	Ø 1,0	Ø 1,6
										wide, robust head, fine cut		
2404E	Flush	0.354	9	0.433	11	0.236	6	0.787	20	-	Ø 0,8	Ø 1,3
										pointed rounded head		

Tip cutter - angled narrow head

5.315 Inch / 135 mm
2.539 oz. / 72 g
45°

- The angled head provides for precise cuts at different working angles.
- Erem cutters and pliers with ergonomic handle. The ergonomic handle and special materials ensure a soft feel, operating comfort and safety.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
2482E	Flush	0.236	6	0.433	11	0.236	6	1.02	26	-	Ø 0,6	Ø 1,2
		suitable for working on printed-circuit boards, component connections, can be used in both 90° and 180° applications										
2475E	Flush	0.157	4	0.433	11	0.236	6	0.866	22	-	Ø 0,4	Ø 0,6
		suitable for fine cutting work on hybrid circuits of miniature components										

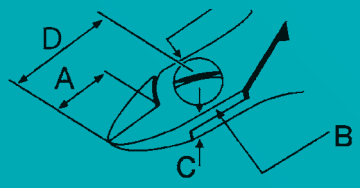
Tip cutter - straight long relieved head

5.512 Inch / 140 mm
2.539 oz. / 72 g

- This head is suitable for horizontal and vertical cuts.
- The long tips facilitate cutting in hard-to-reach areas.
- Erem cutters and pliers with ergonomic handle. The ergonomic handle and special materials ensure a soft feel, operating comfort and safety.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
2470E	Flush	0.157	4	0.433	11	0.236	6	1.142	29	-	Ø 0,4	Ø 0,6

Series 500 Medium



A = Length of cutting edges
B = Head width
C = Head thickness
D = Head length

Side cutter - oval head

4.528 Inch / 115 mm
2.363 oz. / 67 g

- This is the most widely used head shape.
- Fits for all cutting applications where easy access is given
- It is robust and offers the highest cutting capacity.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
512N	Semi-flush	0.472	12	0.433	11	0.236	6	0.748	19	Ø 0,5	Ø 1,0	Ø 1,6
512E	Semi-flush	0.472	12	0.433	11	0.236	6	0.748	19	Ø 0,5 burnished head	Ø 1,0	Ø 1,6
522N	Flush	0.472	12	0.433	11	0.236	6	0.748	19	-	Ø 1,0	Ø 1,6
599E	Flush	0.472	10	0.433	11	0.236	6	0.669	17	- short, robust head	Ø 1,0	Ø 1,6
532N	Perfectly flush cut	0.472	10	0.433	11	0.236	6	0.748	19	-	Ø 0,8	Ø 1,6

Side cutter - tapered head

4.528 Inch / 115 mm
2.363 oz. / 67 g

- The jaws of the cutter have straight edges and taper to a point. This head shape allows access to difficult to reach areas but reduces the cutting capacity in comparison to the same size oval head cutter.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
595E	Flush	0.472	12	0.433	11	0.236	6	0.748	19	-	Ø 1,0	Ø 1,3
										tapered head		
577E	Flush	0.472	10	0.433	11	0.236	6	0.669	17	-	Ø 1,0	Ø 1,3
										tapered, short head		

Tip cutter - angled, wide, robust head

4.331 Inch / 110 mm
2.363 oz. / 67 g
30°

- The angled head provides for precise cuts at different working angles.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
503E	Flush	0.354	9	0.433	11	0.236	6	0.748	19	-	Ø 1,0	Ø 1,6
										wide, robust head		
504AE	Flush	0.354	9	0.433	11	0.236	6	0.748	19		Ø 0,8	Ø 1,3
										pointed, rounded head		

Tip cutter - angled narrow head

4.724 Inch / 120 mm
2.399 oz. / 68 g
35°

- The angled head provides for precise cuts at different working angles.
- Narrow, robust head, suitable for working with high cutting force in confined areas.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
555E	Flush	0.236	6	0.433	11	0.256	6	0.945	24	-	Ø 0,6	Ø 1,3

4.528 Inch / 115 mm
2.399 oz. / 68 g
40°

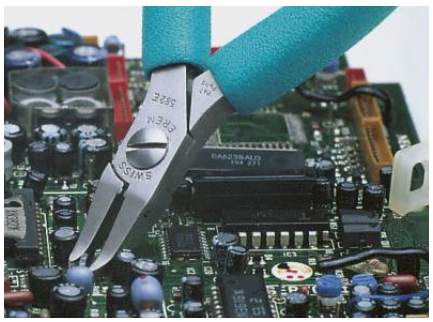
- Relieved cutting edge for easy access.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
572E	Flush	0.236	6	0.433	11	0.236	6	0.827	21	-	Ø 0,6	Ø 1,3

4.528 Inch / 115 mm
2.399 oz. / 68 g
40°

- Suitable for working on printed-circuit boards, component connections, can be used in both 90° and 180° applications

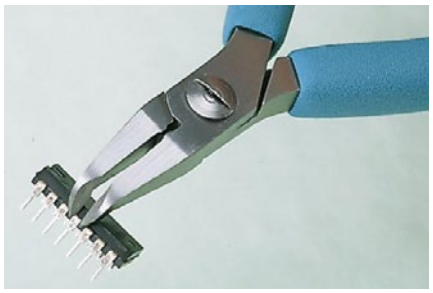
Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
582E	Flush	0.236	6	0.433	11	0.236	6	1.024	26	-	Ø 0,6	Ø 1,3



4.528 Inch / 115 mm
2.364 oz. / 67 g
45°

- Suitable for working on printed-circuit boards, component connections, can be used in both 90° and 180° applications.
- With safety device for wire scraps.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
582EW	Flush	0.236	6	0.433	11	0.236	6	1.024	26	-	Ø 0,6	Ø 1,3



4.528 Inch / 115 mm
2.399 oz. / 68 g
30°

- High precision tip cutter, bent.
- Practical rework tool.
- For cutting DIL contacts directly on the component.
- Ideal for densely printed boards.
- Non-reflecting surface
- ESD-safe

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
593AE	Flush	0.157	4	0.433	11	0.236	6	1.024	26		ø 0,4	ø 1,0

4.331 Inch / 110 mm
2.363 oz. / 67 g
45°

- Suitable for fine cutting work on hybrid circuits or miniature components.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
575E	Flush	0.157	4	0.433	11	0.236	6	0.866	22	-	Ø 0,2	Ø 0,6

Side cutter - pointed relieved head

4.528 Inch / 115 mm
2.363 oz. / 67 g

- This is the narrowest head shape.
- The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
592E	Flush	0.472	12	0.433	11	0.236	6	0.748	19	-	Ø 0,4	Ø 0,8
792E	Perfectly flush cut	0.472	12	0.433	11	0.236	6	0.748	19	-	Ø 0,4	Ø 0,6

Tip cutter - straight long relieved head

4.724 Inch / 120 mm
2.363 oz. / 67 g

- This head is suitable for horizontal and vertical cuts.
- The long tips facilitate cutting in hard-to-reach areas.
- For cutting at extreme tips

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
570E	Flush	0.157	4	0.433	11	0.236	6	1.142	29	-	Ø 0,4	Ø 0,6

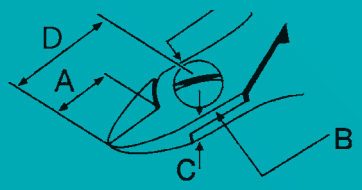
Tip cutter - straight head for vertical use

4.724 Inch / 120 mm
2.363 oz. / 67 g

- Tip cutter for fine wire, Cu 0,8 mm

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
573E	Flush	0.157	4	0.433	11	0.236	6	1.142	29	-	Ø 0,4	Ø 0,8

Series 800 Maxi



A = Length of cutting edges
B = Head width
C = Head thickness
D = Head length

Side cutter - oval head

4.724 Inch / 120 mm
2.363 oz. / 67 g

- This is the most widely used head shape.
- Fits for all cutting applications where easy access is given
- It is robust and offers the highest cutting capacity.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
812N	Semi-flush	0.590	15	0.531	13.5	0.284	7.2	0.827	21	Ø 0,6	Ø 1,2	Ø 1,8
896E	Semi-flush	0.590	15	0.531	13.5	0.284	7.2	0.827	21	Ø 0,6 for cutting hard wires, Kovar®, connector pins	Ø 1,2	Ø 1,8
822N	Flush	0.590	15	0.531	13.5	0.284	7.2	0.827	21	-	Ø 1,2	Ø 1,8

Side cutter - tapered head

4.724 Inch / 120 mm
2.928 oz. / 83 g

- The jaws of the cutter have straight edges and taper to a point. This head shape allows access to difficult to reach areas but reduces the cutting capacity in comparison to the same size oval head cutter.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
886E	Flush	0.590	15	0.531	13.5	0.284	7.2	0.827	21	-	Ø 1,0	Ø 1,8

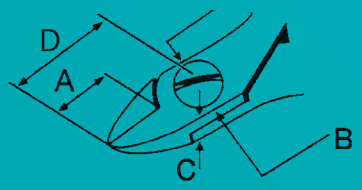
Side cutter - pointed relieved head

4.724 Inch / 120 mm
2.857 oz. / 81 g

- This is the narrowest head shape.
- The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
884E	Flush	0.590	15	0.531	13.5	0.284	7.2	0.827	21	-	Ø 0,8	Ø 1,6

Tungsten-carbide cutters



A = Length of cutting edges
B = Head width
C = Head thickness
D = Head length

Side cutter - oval head, Miniature cutter

4.528 Inch / 115 mm
2.36 oz. / 67 g

- This is the most widely used head shape.
- Fits for all cutting applications where easy access is given
- It is robust and offers the highest cutting capacity.

Model	Cut	A		B		C		D		Max. cutting capability in mm			
		Inch		Inch	mm	Inch	mm	Inch	mm	Piano wire	Hard wire	Medium hardness	Copper wire
622TX	Flush	0.315	8	0.354	9	0.236	6	0.590	15	Ø 0,2	Ø 0,4	Ø 0,6	Ø 1,2
											miniature cutter		
599T	Semi-flush	0.472	12	0.433	11	0.236	6	0.748	19	Ø 0,6	Ø 0,8	Ø 1,0	Ø 1,5
599TF	Flush	0.472	12	0.433	11	0.236	6	0.748	19	Ø 0,6	Ø 0,8	Ø 1,0	Ø 1,5

Side cutter - tapered head

4.528 Inch / 115 mm
2.36 oz. / 67 g

- The jaws of the cutter have straight edges and taper to a point. This head shape allows access to difficult to reach areas but reduces the cutting capacity in comparison to the same size oval head cutter.

Model	Cut	A		B		C		D		Max. cutting capability in mm			
		Inch		Inch	mm	Inch	mm	Inch	mm	Piano wire	Hard wire	Medium hardness	Copper wire
595T	Semi-flush	0.472	12	0.433	11	0.236	6	0.748	19	Ø 0,4	Ø 0,6	Ø 0,8	Ø 1,5
595TF	Flush	0.472	12	0.433	11	0.256	6	0.748	19	Ø 0,4	Ø 0,6	Ø 0,8	Ø 1,5
2476TX1	Flush	0.433	11	0.433	11	0.236	6	0.011	19	Ø 0,3	Ø 0,4	Ø 0,5	Ø 1,0
576TX1	Flush	0.433	11	0.433	11	0.236	6	0.011	19	Ø 0,3	Ø 0,4	Ø 0,5	Ø 1,0

Tip cutter - pointed relieved head

4.528 Inch / 115 mm
67 g

- This is the narrowest head shape.
- The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.

Model	Cut	A		B		C		D		Max. cutting capability in mm			
		Inch		Inch	mm	Inch	mm	Inch	mm	Piano wire	Hard wire	Medium hardness	Copper wire
576TX	Flush	0.433	11	0.433	11	0.236	6	0.748	19	Ø 0,1	Ø 0,2	Ø 0,3	Ø 1,0

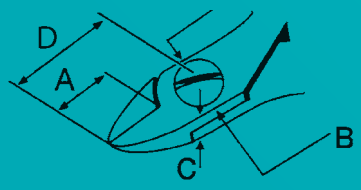
Tip cutter - angled wide head

4.331 Inch / 110 mm
2.36 oz. / 67 g
30°

- The angled head provides for precise cuts at different working angles.

Model	Cut	A		B		C		D		Max. cutting capability in mm			
		Inch		Inch	mm	Inch	mm	Inch	mm	Piano wire	Hard wire	Medium hardness	Copper wire
503ET	Semi-flush	0.354	9	0.433	11	0.236	6	0.748	19	Ø 0,4	Ø 0,6	Ø 0,8	Ø 1,2
503ETF	Flush	0.354	9	0.433	11	0.236	6	0.787	20	Ø 0,4	Ø 0,6	Ø 0,8	Ø 1,2

Special applications



A = Length of cutting edges
B = Head width
C = Head thickness
D = Head length

Special applications: hard wires

5.394 Inch / 137 mm
3.527 oz. / 100 g

- Side cutter with compound action.
- For cutting hard wires with minimal effort

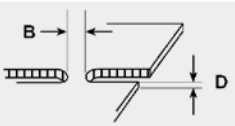
Model	Cut	A		B		C		Max. cutting capacity in mm	
		Inch	mm	Inch	mm	Inch	mm	Copper wire	
E147A	Semi-flush	0.472	12	0.413	10.5	0.284	7.2	Ø 1,8	for cutting hard wires with minimal effort
E147B	Semi-flush	0.472	12	0.413	10.5	0.295	7.5	Ø 1,8	for cutting hard wires with minimal effort
E147AT	Semi-flush	0.472	12	0.413	10.5	0.295	7.5	Ø 1,8	for cutting hard wires with minimal effort

Special applications: cutting printed-circuit boards

4.528 Inch / 115 mm
2.787 oz. / 79 g

- Side cutter, suitable for cutting printed-circuit boards

Model		D max.		B max.	
		Inch	mm	Inch	mm
884EPCM	Flush	0.0591	1.5	0.078	2.0



Special applications: Kevlar® silks

4.528 Inch / 115 mm

2.36 oz. / 67 g

- Side cutter, suitable for cutting Kevlar® silks.
- Avoid any other application than cutting kevlar silks to not damage the tool

Model	Cut	A		B		C		D	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm
599F0		0.472	12	0.433	11	0.24	6	0.748	19

Special applications: Special tool steel

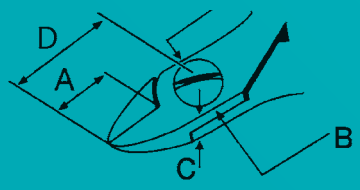
4.528 Inch / 115 mm

2.36 oz. / 67 g

- Side cutter for cutting Kevlar® silks, Vectran™-sheated wires, optical fibres and small stainless wires.
- Side cutter with cutting edges made from tungsten carbide.

Model	Cut	A		B		C		D	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm
599TF0	Semi-flush	0.472	12	0.43	11	0.24	6	0.748	19

Pneumatic side cutter and tip cutter



A = Length of cutting edges
B = Head width
C = Head thickness
D = Head length

Pneumatic side cutter and tip cutter

5.118 Inch / 130 mm
4.59 oz. / 130 g

- Pneumatic cutter
- Handy, light and precise
- Extremely versatile thanks to a selection of different cutting heads
- Easily interchangeable cutting heads
- Suitable for cutting conventional components, soft metals or small plastic parts
- Pneumatic-cutter housing

Model	Diameter		
	Inch	mm	
1500BSF	1.102	28	requires 4- 6 bar oil-free clean compressed air

Side cutter - oval head for 1500BSF

1.16 oz. / 35 g

- This is the standard head shape.
- It is used for all cutting jobs in easy-to-reach areas.
- The oval head provides for a high cutting capacity and is characterised by its robustness.

Model	Cut	A		B		C		Max. cutting capacity in mm
		Inch	mm	Inch	mm	Inch	mm	Copper wire
1512N	Semi-flush	0.394	10	0.413	10.5	0.24	6	Ø 1,6
1522N	Flush	0.394	10	0.413	10.5	0.24	6	Ø 1,6

Side cutters - tapered head cutting head for 1500 BSF

1.16 oz. / 35 g

- The edges of the cutter head are straight and taper to a point, allowing access to hard to reach area.

Model	Cut	A		B		C		Max. cutting capacity in mm
		Inch	mm	Inch	mm	Inch	mm	Copper wire
1522NA	Flush	0.354	9	0.413	10.5	0.24	6	Ø 1,4

Pointed relieved head for 1500 BSF

1.12 oz. / 32 g

- This is the narrowest head shape.
- The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.

Model	Cut	A		B		C		Max. cutting capacity in mm
		Inch	mm	Inch	mm	Inch	mm	Copper wire
1522NB	Flush	0.354	9	0.413	10.5	0.24	6	Ø 1,2

Cutting head for 1500 BSF - tip cutter - angled head

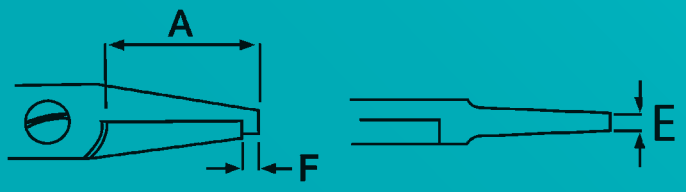
1.34 oz. / 38 g

30°

- The angled head provides for precise cuts at different working angles.

Model	Cut	A		B		C		Max. cutting capacity in mm
		Inch	mm	Inch	mm	Inch	mm	Copper wire
1503E	Flush	0.472	12	0.413	10.5	0.24	6	Ø 1,2

Distance cutter



A = Jaw length
E = Width of tips
F = Cutting length

Distance cutter - fixed cutting length

Distance cutter copper wire to a length of 1.5 mm/.059 Inch

4.724 Inch / 120 mm
2.36 oz. / 67 g

- Special tool steel
- ESD-safe
- Fixed cutting length
- Reduces mechanical shock on components

Model	Cut	A		E		F		Max. cutting capacity in mm	
		Inch	mm	Inch	mm	Inch	mm	Copper wire	
530E15	Flush	0.787	20	0.118	3	0.059	1.5	Ø 1,2	cuts copper wire to a length of 1,5 mm / 0,059 Inch
530E13	Flush	0.787	20	0.118	3	0.051	1.3	Ø 1,2	cuts copper wire to a length of 1,3 mm / 0,051 Inch
530E08	Flush	0.787	20	0.118	3	0.031	0.8	Ø 1,2	cuts copper wire to a length of 0,8 mm / 0,031 Inch
530E06	Flush	0.787	20	0.118	3	0.023	0.6	Ø 1,2	cuts copper wire to a length of 0,6 mm / 0,023 Inch
530EREC	Flush	0.787	20	0.118	3	0.051	1.3	Ø 1,2	cuts copper wire to a length of 1,3 mm / 0,051 Inch

Distance cutter

Distance cutter, cuts wire to a length of 1.5 mm/.059 Inch

4.724 Inch / 120 mm
2.36 oz. / 67 g
45°

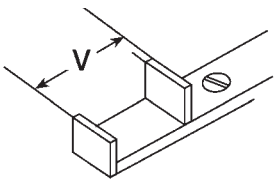
- Special tool steel
- ESD-safe
- Fixed length distance cutter
- Tapered 45°

Model	Cut	A		E		F		Max. cutting capacity in mm
		Inch	mm	Inch	mm	Inch	mm	Copper wire
549E	Flush	0.787	20	0.118	3	0.059	1.5	Ø 1,2
549E10	Flush	0.787	20	0.118	3	0.039	1	Ø 1,2
549E12	Flush	0.787	20	0.118	3	0.047	1.2	Ø 1,2

Distance cutter, variable cutting length

Distance cutter, variable cutting length from 1.2 mm to 6 mm/ 047 to .236 Inch

4.724 Inch / 120 mm
2.47 oz. / 70 g



- Special tool steel
- ESD-safe
- Variable cutting length (= V)
- With protective stop screw

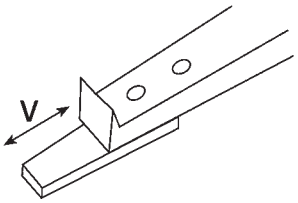
Model	Cut	A		E		V		
		Inch	mm	Inch	mm	Inch	mm	Copper wire
530E15A	Flush	0.787	20	0.177	4.5	0,047 - 0,236	1,2 - 6	Ø 1.2

Distance cutter - variable cutting length

Distance cutter with variable cutting length from 0 mm to 5 mm/ 0 to .197 Inch

4.528 Inch / 115 mm

2.47 oz. / 70 g



- Special tool steel
- ESD-safe
- Variable cutting length (= V)
- With protective stop screw
- Interchangeable plastic stop protects the printed-circuit board against damage

Model	Cut	A		E		V		
		Inch	mm	Inch	mm	Inch	mm	Copper wire
573EB	Flush	0.787	20	0.177	4.5	0 - 0,197	0 - 5	Ø 0.8

Pliers

GET AN ACCURATE AND SURE GRIP ON EVERYTHING

Internal patented Erem Magic Spring

The Magic Spring system used in Erem precision tools is unique. It is integral to the cutting head and provides a constant closing and re-opening force.

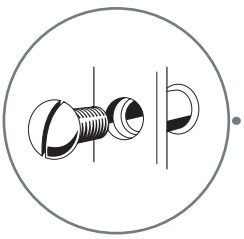
It is highly reliable, makes the tools easy to use and reduces operator fatigue.

- Reduce costs thanks to long life
- Constant spring force
- Guarantees more than 1 million operations

High-precision screw joint

This self-locking screw joint system gives a smooth cutting and opening action and ensures that there is no blade overlap or play.

- Smooth jaw action with no play
- No damaging of sensitive components



Precision-ground jaws

The very precisely worked tips get a firm and sure grip on even the thinnest of parts.

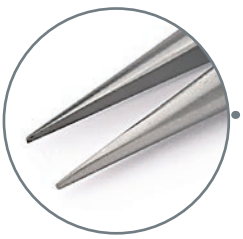
The choice of high-quality materials and meticulous tempering are especially important during the manufacturing of these tweezers.

- Ground with the greatest precision

Special tool steel

Erem electronics tools are made from bright steel. They are not drop forged. The special tool steel is made using a unique Swiss processing technique.

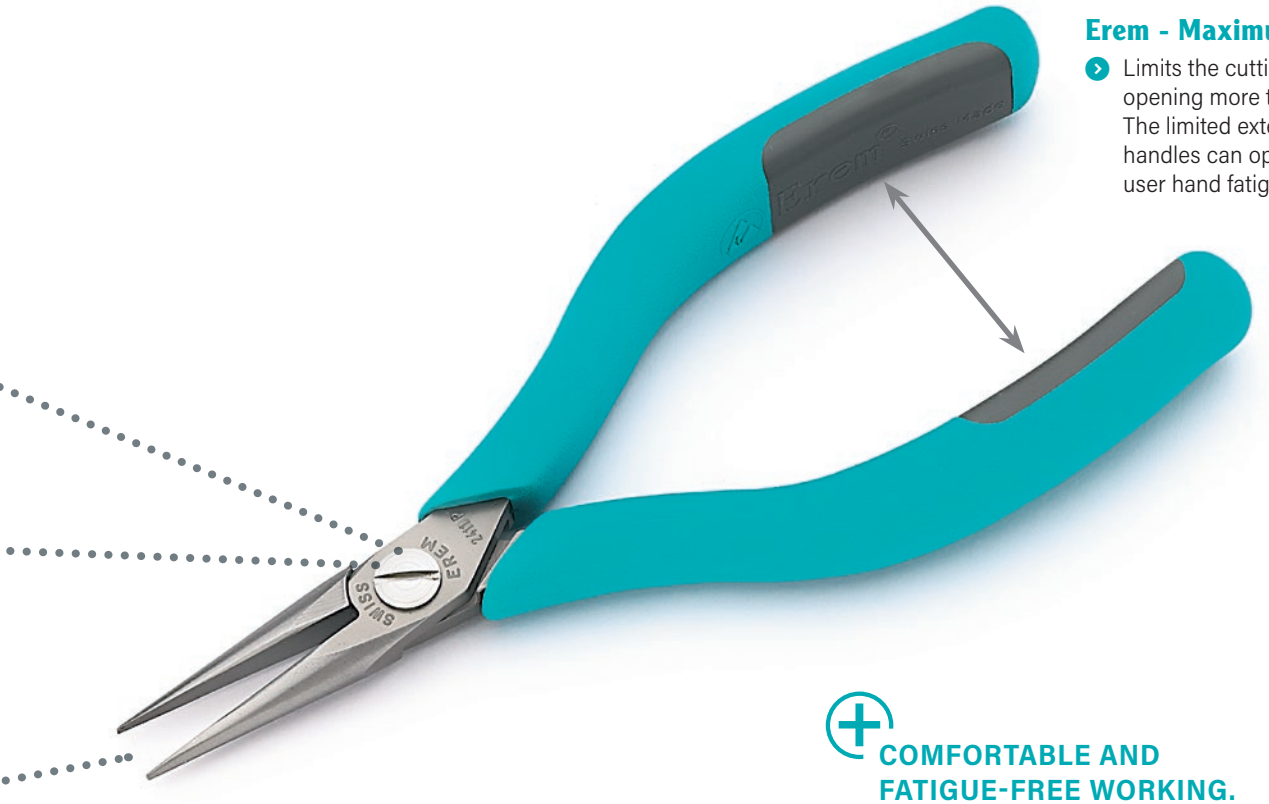
- The bright tool steel gives additional strength and toughness to the tools to promote a long service life.



Ergonomically shaped handles

- For high comfort, better grip and added safety

WIDE VARIETY OF HEAD SHAPES



Erem - Maximum Opening Stop

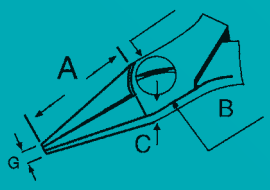
- Limits the cutting-edge tips from opening more than 5 mm/.197 Inch. The limited extent to which the handles can open prevents user hand fatigue.

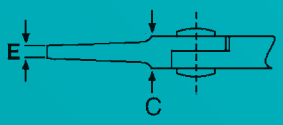
COMFORTABLE AND FATIGUE-FREE WORKING.

ESD-safe

The interchangeable foam-cushion handles are ESD-safe and are fitted as standard on all Erem cutters and pliers.

Series 500 Medium





A = Jaw length
B = Head width
C = head thickness
E = Width of tips
G = Total height of both tips

Round nose pliers

Round nose pliers with very precise, smooth jaws.

4.724 Inch / 120 mm
2.89 / 62 g

- Pliers for miniature and standard electronics
- Non-reflecting surface, ESD-safe
- Suitable for forming, bending, laying and feeding in wires.
- High grade tool steel

Model	Shape	A		B		C		E		G	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
543E		0.91	23	0.43	11	0.24	6	0.031	Ø 0,8	0.063	1.6
546E				0.43	11	0.236	6.0		-	0.039	1.0

Needle nose pliers

Needle nose pliers with very precise, smooth and rounded jaws.

4.724 Inch / 120 mm
2.19 / 62 g

- Pliers for miniature and standard electronics
- Non-reflecting surface, ESD-safe, high grade tool steel
- Suitable for forming, bending, laying and feeding in wires.

Model	Shape	A		B		C		E		G	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
547		0.91	23	0.43	11	0.24	6	0.035	0.9	0.047	1.2

Flat nose pliers

Flat nose pliers with smooth jaws and precision-machined edges.

4.724 Inch / 120 mm
2.36 / 67 g

- Pliers for miniature and standard electronics
- Non-reflecting surface, ESD-safe, high grade tool steel
- Suitable for gripping flat workpieces.

Model	Shape	A		B		C		E		G	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
542E		0.91	23	0.43	11	0.24	6	0.055	1.4	0.055	1.4

Flat nose pliers with replaceable nylon jaws.

4.921 Inch / 125 mm
2.36 / 67 g

- Pliers for miniature and standard electronics
- Non-reflecting surface, ESD-safe, high grade tool steel
- Nylon jaws prevent nicking and scratching.
- Suitable for forming precious metals and component connections.

Model	Shape	A		B		C		E		G	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
531E		0.91	23	0.43	11	0.24	6	0.2	5	0.12	3

Chain nose pliers

Chain nose pliers with narrow half-round jaws.

4.724 Inch / 120 mm
2.36 / 67 g

- Pliers for miniature and standard electronics
- Non-reflecting surface, ESD-safe, high grade tool steel
- For securely handling components.

Model	Shape	A		B		C		E		G	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
544E		0.91	23	0.43	11	0.24	6	0.039	1	0.055	1.4

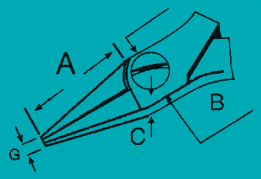
Chain nose pliers with inside-serrated jaws for secure handling

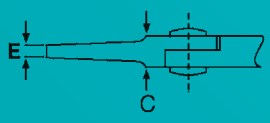
4.724 Inch / 120 mm
2.64 / 67 g

- Pliers for miniature and standard electronics
- Non-reflecting surface, ESD-safe, high grade tool steel

Model	Shape	A		B		C		E		G	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
544D		0.91	23	0.35	9	0.26	6.5	0.039	1	0.055	1.4

Series 2400 MagicSense





A = Jaw length
B = Head width
C = head thickness
E = Width of tips
G = Total height of both tips

Needle nose pliers

Needle nose pliers with very precise, smooth and rounded jaws.

5.748 Inch / 146 mm
2.54 / 72 g

- Pliers for miniature and standard electronics
- Optimized ergonomically shaped handles for increased comfort
- Non-reflecting surface, ESD-safe

Model	Shape	A		B		C		E		G		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
2411P		1.32	33.5	0.43	11	0.24	6	0.039	1	0.047	1.2	Smooth jaws
2411PD		1.32	33.5	0.43	11	0.24	6	0.039	1	0.047	1.2	Inside serrated jaws for better grip

Flat nose pliers

Flat nose pliers with smooth jaws and precision-machined edges.

5.748 Inch / 146 mm
2.54 / 72 g

- Pliers for miniature and standard electronics
- Optimized ergonomically shaped handles for increased comfort
- Non-reflecting surface, ESD-safe
- Suitable for gripping flat workpieces.

Model	Shape	A		B		C		E		G	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2442P		1.32	33.5	0.43	11	0.24	6	0.13	3.4	0.047	1.2

Round nose pliers

Round nose pliers with very precise, smooth jaws

5.748 Inch / 146 mm
2.54 / 72 g

- Pliers for miniature and standard electronics
- Optimized ergonomically shaped handles for increased comfort
- Non-reflecting surface, ESD-safe
- Suitable for bending wires.

Model	Shape	A		B		C		E		G	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
2443P		1.319	33.5	0.43	11	0.24	6	0.031	0.8	0.063	1.6

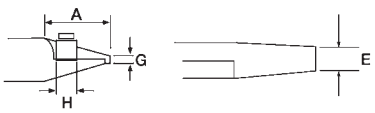
Stripping pliers

High precision stripping pliers

Pliers for front stripping 0.25 mm – 1.02 mm .010 Inch – .040 Inch (AWG 30 – 18)

4.724 Inch / 120 mm

2.65 / 75 g

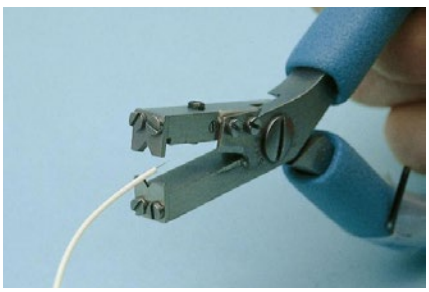


A = jaw length
E = Width of tips
G = Total height of both tips
H = Length of cutting blade

- Robust, high-precision tools for use in electronics and aeronautical engineering
- The required diameter is set by means of screws
- ESD-safe
- Suitable for all types of insulation and optical fibres.
- Interchangeable side cutting blade.

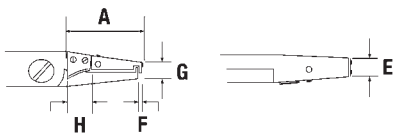
Model	A		E		G		H		Wire diameter	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
510AE	0.83	21	0.20	5	0.16	4	0.35	9	0,010 - 0,040	0,25 - 1,02

Pliers for front stripping 0.06 mm – 0.6 mm .002 Inch – .023 Inch (AWG 42 – 24)



4.724 Inch / 120 mm

2.82 / 80 g

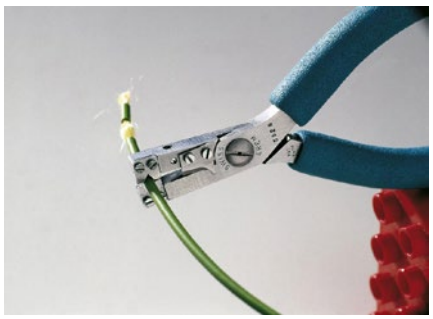


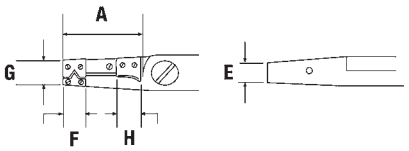
A = Jaw length
E = Width of tips
F = Depth of interchangeable blade
G = Total height of both tips
H = Length of cutting blade

- Robust, high-precision tools for use in electronics and aeronautical engineering
- The required diameter is set by means of screws
- Screwdriver and key are included
- Interchangeable blades
- ESD-safe
- Unique precision for damage-free stripping of fine wires.
- Suitable for all types of insulation, Teflon®, Tefzel and optical fibres.

Model	A		E		F		G		H		Wire diameter	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
552E	0.91	23	0.24	6	0.39	1	0.43	11	0.35	9	0,002 - 0,023	0,06 - 0,6

Side stripping 0.06 mm – 0.6 mm .002 Inch – .023 Inch (AWG 42 – 24)





A = Jaw length
E = Width of tips
F = Depth of interchangeable blade
G = Total height of both tips
H = Length of cutting blade

- Robust, high-precision tools for use in electronics and aeronautical engineering
- The required diameter is set by means of screws
- Screwdriver and key are included
- Interchangeable blades
- ESD-safe
- Unique precision for damage-free stripping of fine wires.
- Suitable for all types of insulation, Teflon®, Tefzel and optical fibres.
- Unlimited stripping length thanks to side stripping
- Suitable for simple and precise stripping of optical fibres
- Non-reflecting surface

4.724 Inch / 120 mm

2.82 / 80 g

Model	A		E		F		G		H		Wire diameter	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
552S	0.82	21	0.24	6	0.24	6	0.43	11	0.354	9	0.002 - 0.024	0,06 - 0,6

Forming pliers

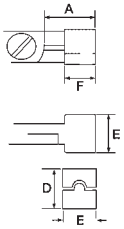
Forming pliers for passive components

Forming pliers for component connection, U-shape.

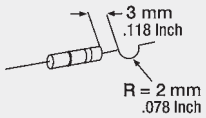
4.724 Inch / 120 mm

2.47 / 70 g

- Safe bending, forming and preparation of component connections
- Non-reflecting surface
- ESD-safe



A = Jaw length
D = Height of tips
E = Width of tips
F = Length of forming

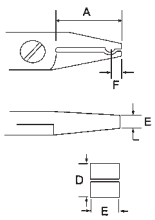
Model		A		D		E		F		Diodes		Capacitors		Resistors
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
554E		0.513	13	0.394	10	0.394	10	0.394	10	0.025	0.65	0.027	0.7	1/2 W

Forming pliers for component connections, U-shape, axial forming.

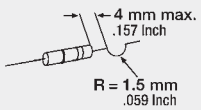
4.724 Inch / 120 mm

2.47 / 70 g

- Suitable for component connections, U-shape, axial forming
- Narrow head shape.
- ESD-safe



A = Jaw length
D = Height of tips
E = Width of tips
F = Length of forming

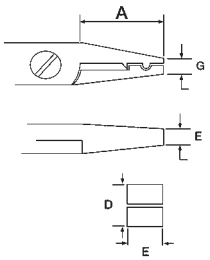
Model		A		D		E		F		Diodes		Capacitors		resistors
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
554A		0.905	23	0.25	6.4	0.158	4	0.16	4	0.025	0.65	0.027	0.7	1/2 W

Forming pliers for cutting and bending components

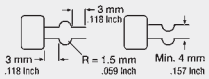
4.724 Inch / 120 mm

2.47 / 67 g

- Safe bending, forming and preparation of component connections
- Non-reflecting surface
- ESD-safe



A = Jaw length
D = Height of tips
E = Width of tips
F = Length of forming

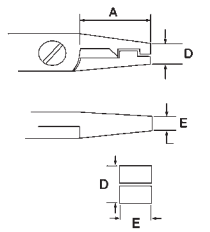
Model		A		D		E		F		Diodes		Capacitors		resistors
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
50788		0.905	23	0.27	6.9	0.17	4.2			0.025	0.65	0.027	0.7	1/2 W

Forming pliers for cutting and bending

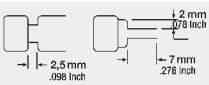
4.724 Inch / 120 mm

2.36 / 67 g

- Safe bending, forming and preparation of component connections
- Non-reflecting surface
- ESD-safe



A = Jaw length
D = Height of tips
E = Width of tips
F = Length of forming

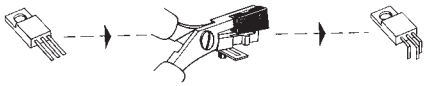
Model		A		D		E		F		Diodes		Capacitors		resistors
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	
50789Z		0.905	23	0.130	3.3	0.17	4.2			0.25	0.65	0.027	0.7	1/2 W

Forming plier for bending flat components

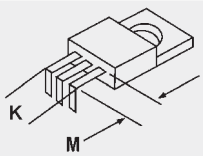
Forming plier for bending flat components, contacts, power transistors, Triac connections to a right angle.

4.724 Inch / 120 mm

3.00 / 85 g



- Safe bending, forming and preparation of component connections, specially for integrated components and power transistors
- Non-reflecting surface
- ESD-safe

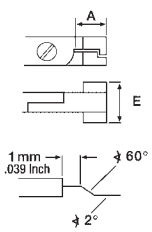
Model	K max.		M	
	Inch	mm	Inch	mm
500103A 	0.590	15	0.12 - 0.47	3 - 12

High precision forming pliers for Flat Packs, Quads

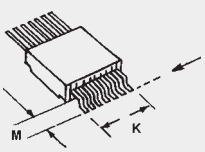
Forming plier for bending flat components, contacts, power transistors, Triac connections to a right angle.

4.724 Inch / 120 mm

3.53 / 100 g



- Safe bending, forming and preparation of component connections, specially for integrated components and power transistors
- Non-reflecting surface
- ESD-safe

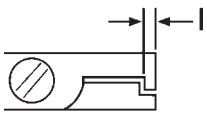
Model		K max.		M		A	
	Inch	mm	Inch	mm	Inch	mm	
80013C 	0.512	13	0.110	2.8	0.669	17	

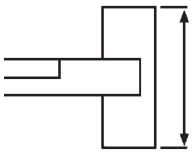
High precision forming pliers for DIL pins

Forming plier for cutting and bending DIL pins through 90° in one operation.

4.724 Inch / 120 mm

3.46 / 98 g





- Safe bending, forming and preparation of component connections, specially for integrated components and power transistors
- Non-reflecting surface
- ESD-safe
- Up to max. 20 DIL pins.

Model		E		F	
	Inch	mm	Inch	mm	
809IC			0.984	25	0.035	0.9

Tweezers

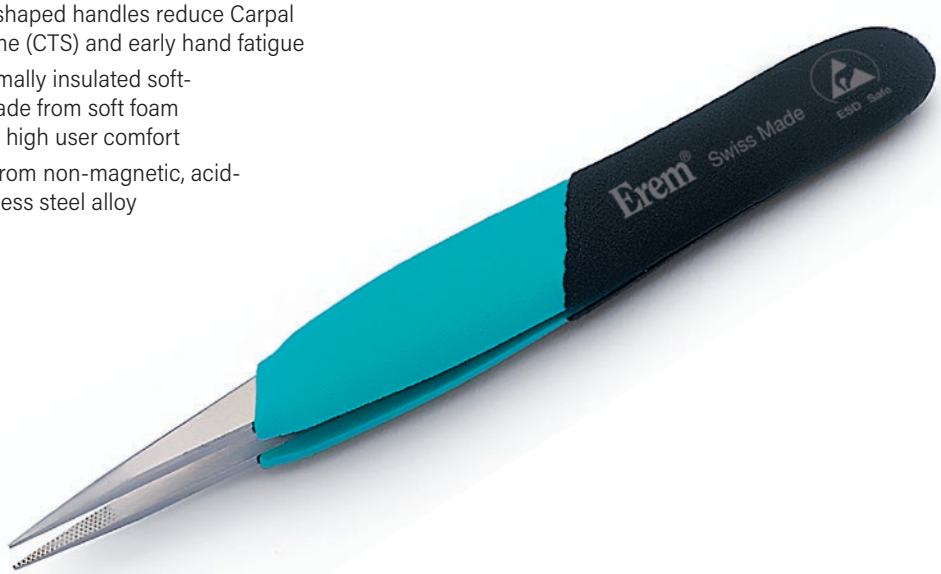
EREM MANUFACTURES A WIDE RANGE OF TWEEZERS.

ESD-safe

All tweezers with soft-grip are ESD-safe.

ERGONOMICALLY SHAPED HANDLES

- Ergonomically shaped handles reduce Carpal Tunnel Syndrome (CTS) and early hand fatigue
- Two-color, thermally insulated soft-grip handles made from soft foam material ensure high user comfort
- Manufactured from non-magnetic, acid-proof and stainless steel alloy



Pyroplast coating
The Pyroplast coating is not available on all Erem tweezers. It is made to order and requires a minimum order quantity.

Hardened steel

Tweezers made from hardened steel are typified by their particularly hard tips, which ensure great durability.
The tweezers are magnetic and the material may rust.

Titanium

Titanium tweezers are light weight and resistant to high temperatures.

Stainless steel

Tweezers made from stainless steel have robust tips and do not rust. The material is less hard than hardened steel.

Erem Special stainless steel

This alloy is non-magnetic. The tweezers do not rust and are acid-proof and heat-resistant up to 300°C (512°F).

POINTED TIPS
for precision work

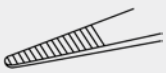
LARGE SELECTION
of matching SMD tweezers and cutting tweezers for individual applications

Precision tweezers

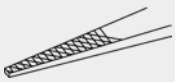
Precision tweezers: Pointed tips straight

- For applications in microelectronics, jewelrymaking, watchmaking, medicine and laboratory technology
- Suitable for delicate standard applications and precision work on small components or wires
- For all models with the suffix SA or SASL in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant
- For all models with the suffix S in the order number: Stainless steel, robust tips, non-rusting, non-reflecting surface

3.150 Inch / 80 mm	Model	Weight oz.	Weight g	Material	Description
	**M5S**	0.21	6	Stainless steel	Micro-tweezers, very pointed tips, e.g. for precision work under a microscope.

4.252 Inch / 108 mm	Model	Weight oz.	Weight g	Material	Description
	**ACSA**	0.56	16	Special stainless steel	Precision tweezers with serrated finger grips for secure handling. For precise bending and holding of components or wires.
	**20AS** 	0.42	12	Special stainless steel	Precision tweezers with serrated finger grips and inside-serrated tips for secure handling. Guide pin to avoid overlapping of tips. For precise bending and holding of components or wires.

4.331 Inch / 110 mm	Model	Weight oz.	Weight g	Material	Description
	**3CSA**	0.39	11	Special stainless steel	Precision tweezers, standard model for delicate work.
	**3CSASL**	0.39	11	Special stainless steel	Precision tweezers, standard model for delicate work. Same as 3CSA, but economy model.
	**53CSA** 	0.39	11	Special stainless steel	Precision tweezers with anti-crush feature.Prevents damage to sensitive components. Tweezers relieved at front for secure handling.

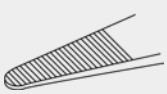
4.724 Inch / 120 mm	Model	Weight oz.	Weight g	Material	Description
	**3SASL**	0.49	14	Special stainless steel	Precision tweezers with pointed tips for work in microelectronics. Same as 3SA, but economy model.
	**00BSA** 	0.71	20	Special stainless steel	Precision tweezers with pointed tips. Very robust. Suitable for standard applications, e.g. for assembly in electronics. Model same as OOSA, but with serrated finger grips for secure handling.
	**00CSA**	0.64	18	Special stainless steel	Precision tweezers with pointed tips. Very robust. Suitable for standard applications, e.g. for assembly in electronics. Model same as OOSA, but with shorter tips.
	**3SA**	0.49	14	Special stainless steel	Precision tweezers with pointed tips for work in microelectronics.
	**00DSA**	0.71	20	Special stainless steel	Precision tweezers with pointed tips. Very robust. Suitable for standard applications, e.g. for assembly in electronics. Model same as OOSA, but with serrated finger grips and inside-serrated tips for secure handling.
	**00SASL**	0.39	20	Special stainless steel	Precision tweezers with pointed tips. Very robust. Suitable for standard applications, e.g. for assembly in electronics. Same as OOSA, but economy model.
	**00SA**	0.71	20	Special stainless steel	Precision tweezers with pointed tips. Very robust. Suitable for standard applications, e.g. for assembly in electronics.
	**1SASL**	0.49	14	Special stainless steel	Precision tweezers with pointed tips for standard applications. Same as 1SA, but economy model.
	**1SA**	0.49	14	Special stainless steel	Precision tweezers with pointed tips for standard applications.
	**AAZ**	0.56	16	Stainless steel, nickel-plated	Precision tweezers with medium-pointed tips, nickel-plated. Suitable for electronic assembly tasks.

4.921 Inch / 125 mm	Model	Weight oz.	Weight g	Material	Description
	**AAS**	0.56	16	Stainless steel	Precision tweezers with fine but robust tips.
	**AASA**	0.56	16	Special stainless steel	Precision tweezers with fine but robust tips for standard applications.
	**AASASL**	0.56	16	Special stainless steel	Precision tweezers with fine but robust tips for standard applications. Same as AASA, but economy model.
	**AM**	0.60	17	Brass	Precision tweezers made from brass.

5.118 Inch / 130 mm	Model	Weight oz.	Weight g	Material	Description
	**249SA**	0.71	20	Special stainless steel, pointed synthetic tips (PPS)	Precision tweezers with pointed synthetic tips (PPS) and serrated finger grips for secure handling. Volume resistance 16 Ω/cm. Heat-resistant up to 250 °C (480 °F). Resistant to acids and molten soldering tin. Water-repellent.
	**249CER**	0.84	24	Special stainless steel, ceramic tips	Precision tweezers with ceramic tips and serrated finger grips for secure handling.

5.512 Inch / 140 mm	Model	Weight oz.	Weight g	Material	Description
	**RRS**	1.05	30	Stainless steel	Precision tweezers with strong tips for heavy-duty applications.
	**SSSA**	0.39	11	Special stainless steel	Precision tweezers with long, narrow grips and low tension, responds to minimal pressure. The long grips allow precision work close to heat sources.

5.906 Inch / 150 mm	Model	Weight oz.	Weight g	Material	Description
	**29SA**	0.92	26	Special stainless steel	Reverse-action tweezers with wide, rounded tips. For holding parts by reverse clamping action. Insulated handles, e.g. for protecting against heat.

6.299 Inch / 160 mm	Model	Weight oz.	Weight g	Material	Description
	**21SA** 	0.81	23	Special stainless steel	Precision tweezers with medium-pointed tips and serrated finger grips and inside-serrated tips for secure handling. Very robust. The long grips allow precision work close to heat sources.

Precision tweezers: Pointed tips straight relieved

- For precision work e.g. under a microscope
- Relieved shape facilitates excellent access to the most confined spaces
- For all models with the suffix SA or SASL in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant
- For all models with the suffix S in the order number: Stainless steel, robust tips, non-rusting, non-reflecting surface

3.543 Inch / 90 mm

	Model	Weight oz.	Weight g	Material	Description
	**M4AS**	0.32	9	Stainless steel	Micro-tweezers, very pointed tips, e.g. for working under a microscope.

4.331 Inch / 110 mm

	Model	Weight oz.	Weight g	Material	Description
	**4SA**	0.45	13	Special stainless steel	Precision tweezers with very pointed tips.
	**4SASL**	0.46	13	Special stainless steel	Precision tweezers with very pointed tips. Same as 4SA, but economy model.

4.528 Inch / 115 mm

	Model	Weight oz.	Weight g	Material	Description
	**5MBS**	0.42	12	stainless steel	Precision tweezers with extremely pointed tips (~ 0.03 x 0.07 mm/.002 Inch) for use in dissection procedures and working under a microscope. For use on soft materials only.
	**5FSA**	0.42	12	Stainless steel	Precision tweezers with extremely pointed tips (~ 0.05 x 0.1 mm/.003 Inch) for use in dissection procedures and working under a microscope. For use on soft materials only.
	**5SA**	0.42	12	Special stainless steel	Precision tweezers with very pointed tips, suitable for very fine wires.
	**5SASL**	0.42	12	Special stainless steel	Precision tweezers with very pointed tips, suitable for very fine wires. Same as 5SA, but economy model.
	**2SA**	0.56	16	Special stainless steel	Precision tweezers with medium-pointed tips.
	**2SASL**	0.56	16	Special stainless steel	Precision tweezers with medium-pointed tips. Same as 2SA, but economy model.

4.724 Inch / 120 mm

	Model	Weight oz.	Weight g	Material	Description
	**258SA**	0.53	15	Special stainless steel, synthetics tips (PPS)	Precision tweezers with pointed synthetic tips (PPS) and serrated finger grips for secure handling. Volume resistance 16 Ω/cm. Heat-resistant up to 250 °C (480 °F). Resistant to acids and molten soldering tin. Water-repellent.

Precision tweezers: Pointed tips bent

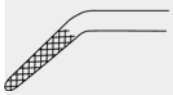
- For applications in biology, medicine, laboratory technology and microelectronics
- Bent shape facilitates access to confined spaces
- For all models with the suffix SA or SASL in the order number: Special stainless steel, nonmagnetic, non-rusting, acid-proof, heat-resistant

4.331 Inch / 110 mm	Model	Weight		Material	Description
		oz.	g		
	**3CBS**	0.53	11	Stainless steel	Precision tweezers, curved 40°, with pointed tips, for precision work such as assembly on printed-circuit boards.

115 mm	Model	Weight		Material	Description
		oz.	g		
	**5CSA**	0.42	12	Special stainless steel	Precision tweezers, curved 30°, relieved. Pointed tips. Relieved shape at front of handle provides excellent visibility of the area to be worked on.
	**5BSA**	0.42	12	Special stainless steel	Precision tweezers, curved 30°, relieved. Pointed tips. Relieved shape at front of handle provides excellent visibility of the area to be worked on.
	**51SA**	0.42	12	Special stainless steel	Precision tweezers, curved 30°, relieved. Very pointed tips. Relieved shape at front of handle provides excellent visibility of the area to be worked on.
	**51SASL**	0.42	12	Special stainless steel	Precision tweezers, curved 30°, relieved. Very pointed tips. Relieved shape at front of handle provides excellent visibility of the area to be worked on. Same as 51SA, but economy model.
	**5ASA**	0.42	12	Special stainless steel	Precision tweezers, lightly curved 15°, relieved. Very pointed tips, e.g. for installing small components.
	**5ASASL**	0.42	12	Special stainless steel	Precision tweezers, lightly curved 15°, relieved. Very pointed tips, e.g. for installing small components. Same as 5ASA, but economy model.

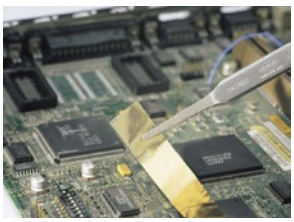
120 mm	Model	Weight oz.	Weight g	Material	Description
	**7SA**	0.53	15	Special stainless steel	Precision tweezers, curved, relieved, with pointed tips. Excellent handling in confined spaces.
	**7SASL**	0.53	15	Special stainless steel	Precision tweezers, curved, relieved, with pointed tips. Excellent handling in confined spaces. Same as 7SA, but economy model.

5.512 Inch / 140 mm	Model	Weight oz.	Weight g	Material	Description
	**65ASA**	0.39	11	Special stainless steel	Precision tweezers, curved 50°. Very pointed tips. For working with extra-small chips and other miniature components.

5.906 Inch / 150 mm	Model	Weight oz.	Weight g	Material	Description
 	**24SA**	0.78	22	Special stainless steel	Precision tweezers, curved 40°, with robust pointed tips. Serrated finger grips and inside-serrated tips for secure handling. Guide pin to avoid overlapping of tips. Ideally suitable for soldering and assembly jobs.
	**30SA**	0.92	26	Special stainless steel	Reverse-action tweezers, curved 50°, with robust pointed tips. Fibreglass handles for protection against heat. Reverse clamping action for comfortably holding parts. Particularly suitable for soldering and assembly jobs.

Precision tweezers: Flat round tips straight

- Suitable for all standard gripping applications and assembly jobs on printed-circuit boards, e.g. in the goldsmith and jewelry industries
- For all models with the suffix SA or SASL in the order number: Special stainless steel, nonmagnetic, non-rusting, acid-proof, heat-resistant

4.724 Inch / 120 mm	Model	Weight		Material	Description
		oz.	g		
	**2ASA**	0.53	15	Special stainless steel	Precision tweezers with flat rounded tips for gripping components. Tip width 2 mm/.078 Inch.
	**2ASASL**	0.53	15	Special stainless steel	Precision tweezers with flat rounded tips for gripping components. Tip width 2 mm/.078 Inch. Same as 2ASA, but economy model.
	**2ASASLT**	0.53	16	Special stainless steel	Precision tweezers with flat rounded tips for gripping components. Tip width 2 mm/.078 Inch. Same as 2ASA, but with Teflon®-coated tips for non-stick holding of self-adhesive parts.
	**2ASARU**	0.53	16	Special stainless steel	Precision tweezers with flat rounded tips for gripping components. Tip width 2 mm/.078 Inch. Same as 2ASA, but with coated tips for non-stick holding of self-adhesive parts.
	**52ASA** 	0.53	15	Special stainless steel	Precision tweezers with pointed, rounded and flexibly movable tips. Prevents damage to sensitive components.
	**25SA**	0.53	15	Special stainless steel	Precision tweezers with flat, round tips slightly wider than the 2ASARU model. Serrated finger grips for secure handling. For standard gripping jobs.

Precision tweezers with ergonomic handles

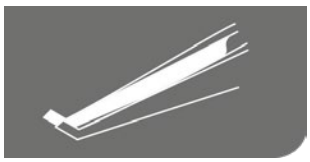
- This series offers models with thin shaped tips to suit every application
- Ergonomically shaped handles reduce hand fatigue and facilitates comfortable working
- Thermally insulated, soft foam handles, ESD-safe
- For all models with the suffix SA in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant

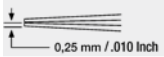
4.724 Inch / 120 mm	Model	Weight		Material	Description
		oz.	g		
	**E5SA**	0.88	25	Special stainless steel, soft foam handles	Ergonomic precision tweezers with straight, very pointed tips for gripping fine wires.
	**E3CSA**	0.88	25	Special stainless steel, soft foam handles	Ergonomic precision tweezers with long, straight and pointed tips, e.g. for assembly jobs on printed-circuit boards.
	**E00SA**	1.05	30	Special stainless steel, soft foam handles	Ergonomic precision tweezers with straight, strong tips for standard applications. Very robust.
	**E00DSA**	1.05	30	Special stainless steel, soft foam handles	Model same as E00SA, but with inside-serrated tips.
	**E7SA**	0.99	28	Special stainless steel, soft foam handles	Ergonomic precision tweezers with curved strong tips, e.g. for working in confined spaces.
	**E2ASA**	1.05	30	Special stainless steel, soft foam handles	Ergonomic precision tweezers with straight, flat and rounded tips for simple gripping jobs. Tip width 2 mm/.078 Inch.
	**E15AGW**	1.05	30	Carbon-steel, soft foam handles	Cutting tweezers, carbon-steel tips.

SMD tweezers

SMD tweezers – Angled tips

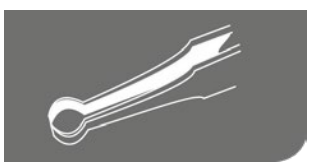
- Suitable for perfect handling of chips and miniature components
- Suitable for assembling SMD printed-circuit boards or ceramic substrates
- Bent shape facilitates optimum access to confined spaces and provides excellent visibility of the area to be worked on
- For all models with the suffix CA in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant



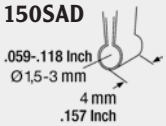
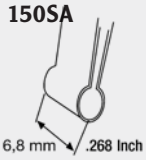
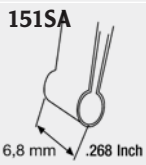
4.528 Inch / 115 mm	Model	Weight		Material	Description
		oz.	g		
	**102ACA** 	0.53	15	Special stainless steel	SMD tweezers, angled 45°, with pointed tips for vertical application.
	**102ACAX** 	0.49	14	Special stainless steel	SMD tweezers, angled 45°, with pointed tips for vertical application. Model same as 102ACA, but reverse clamping action for easy holding.
	**103ACA** 	0.53	15	Special stainless steel	SMD tweezers, angled 45°, with slightly wider tips for vertical application.

SMD tweezers – Round tips straight

- Suitable for gripping and holding round components and wires
- Blunted edges prevent damage to printed-circuit boards
- For all models with the suffix SA in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant



4.331 Inch/ 110 mm	Model	Weight		Material	Description
		oz.	g		
	**39SA**	0.53	15	Special stainless steel	SMD tweezers with round tips, dia. 0.3 mm/.011 Inch. Serrated finger grips for secure handling. For gripping small wires and cylindrical components.
	**40SA**	0.53	15	Special stainless steel	SMD tweezers with round tips, dia. 0.4 mm/.015 Inch. Serrated finger grips for secure handling. For gripping small wires and cylindrical components.

4.724 Inch / 120 mm	Model	Weight oz.	Weight g	Material	Description
	**150SAMF**	0.46	13	Stainless steel	SMD tweezers with round, very narrow tips, dia. 1.2 – 2.5 mm/ .047 – .098 Inch. Serrated finger grips for secure handling. For gripping cylindrical components, mini MELFs, etc.
	**150SAD** 	0.46	13	Stainless steel	SMD tweezers with round tips, dia. 1.5 – 3 mm/.059 –.118 Inch.Serrated finger grips for secure handling. For gripping cylindrical components, mini MELFs, etc.
	**150SA** 	0.46	13	Special stainless steel	SMD tweezers with round tips, dia. 1.5 – 3 mm/.059 –.118 Inch. Serrated finger grips for secure handling. For gripping cylindrical components.
	**151SA** 	0.46	13	Special stainless steel	SMD tweezers with round tips, dia. 3 – 6 mm/.118 –.236 Inch. Serrated finger grips for secure handling. For gripping cylindrical components.

SMD tweezers – Round tips bent

- Suitable for gripping fine wires and cylindrical components
- Blunted edges prevent damage to printed-circuit boards
- For all models with the suffix SA in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant

4.528 Inch / 115 mm	Model	Weight oz.	Weight g	Material	Description
	**150SAMB**	0.60	17	Special stainless steel	SMD tweezers, angled 40°, with round tips, dia. 1.2 – 2.5 mm / .047 – .098 Inch. Serrated finger grips for secure handling.
	**32BSA**	0.60	17	Special stainless steel	SMD tweezers, angled 45°, with round tips, dia. 5 mm/.197 Inch.
	**32BSA20**	0.60	17	Special stainless steel	SMD tweezers, angled 45°, with round tips, dia. 2 mm/.078
	**32BSA25**	0.60	17	Special stainless steel	SMD tweezers, angled 45°, with round tips, dia. 2.5 mm/.098 Inch.

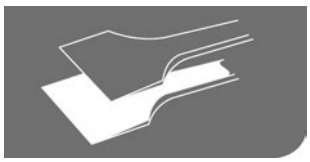
Locking gripping tweezers

- Gripping tweezers enable the user to hold and manipulate particularly fine wires with a diameter from 0.3 mm/.011 Inch or insulated optical fibres with a diameter of between 1.5 mm/.059 Inch and 5 mm/.197 Inch
- Suitable as a ligature clamp in dentistry
- Can be disinfected and sterilized

4.724 Inch / 120 mm	Model	Weight		Material	Description
		oz.	g		
	**940AS**	0.60	17	Special stainless steel	Gripping tweezers with locking mechanism. The ring-shaped tip provides for secure handling up to a tensile force of 5 kg.

Wafer tweezers

- Suitable for 3″ to 6″ wafers
- Serrated finger grips for secure handling
- Wafer tweezers are available to order in various sizes and coatings
- For all models with the suffix SA in the order number: Special stainless steel, non-magnetic, non-rusting, acid-proof, heat-resistant



A = Paddle width
B = Paddle depth

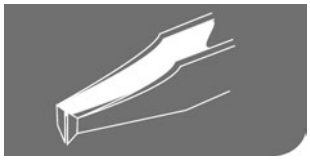
4.921 Inch / 125 mm	Model	Weight		A	B	Material	Description
		oz.	g	mm	mm		
	**91SA**	0.53	15	12	7	Special stainless steel	Standard wafer tweezers for 3″ and 4″ wafers.

5.118 Inch / 130 mm	Model	Weight		A	B	Material	Description
		oz.	g	mm	mm		
	**608ASA**	0.81	23	30	8.5	Special stainless steel	Wafer tweezers with flat lower paddle and 6 upper fingers for protecting wafers against damage. For 6″ wafers. Model same as 600ASA, but 30 mm/1.181 Inch wide.
	**600ASA**	0.81	23	19.5	8	Special stainless steel	Wafer tweezers with flat lower paddle and 6 upper fingers for protecting wafers against damage. For 6″ wafers.

5.906 Inch / 150 mm	Model	Weight		A	B	Material	Description
		oz.	g	mm	mm		
	**141SAP**	1.06	30	30	8	Special stainless steel	Wafer tweezers, 150 mm with polyester tips for protecting Si, GaAs or Ti wafers against damage. For 4" - 6" wafers.

Cutting tweezers

- Suitable for cutting fine, soft wires and small components
- Delivers high-precision cuts
- Hardened cutting edges for long service life

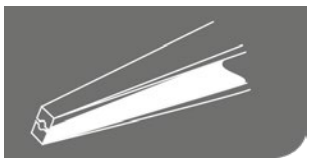


4.528 Inch / 115 mm

Model	Weight		Material	Description
	oz.	g		
15AGW	0.92	26	Carbon Steel	Cutting tweezers with narrow oblique head. For soft wires up to dia. 0.25 mm/.010 Inch.
15AGS	0.74	21	Carbon Steel	Cutting tweezers with narrow oblique head. For soft wires up to dia. 0.25 mm/.010 Inch.
B15AGS	0.74	21	Carbon Steel	Black cutting tweezers with narrow oblique head. For soft wires up to dia. 0.25 mm/.010 Inch.
B15AGW	0.92	26	Carbon Steel	Black cutting tweezers with narrow oblique head. For soft wires up to dia. 0.25 mm/.010 Inch.

Stripping tweezers

- Suitable for stripping fine wires with PVC or Teflon® insulation
- Non-reflecting surface
- Please send a wire sample when ordering

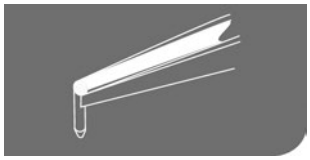


4.724 Inch / 120 mm	Model	Weight		Material	Description
		oz.	g		
	**29Y30**	0.78	22	carbon steel	Miniature stripping tweezers, dia. 0.25 mm / .010 Inch (AWG 30). Carbon steel. Serrated finger grips for secure handling.
	**29Y32**	0.78	22	Carbon steel	Miniature stripping tweezers, dia. 0.2 mm / .007 Inch (AWG 32). Carbon steel. Serrated finger grips for secure handling.
	**29Y34**	0.78	22	Stainless steel	Miniature stripping tweezers, dia. 0.16 mm/.006 Inch (AWG 34). Stainless steel. Serrated finger grips for secure handling.
	**29Y36**	0.78	22	Stainless steel	Miniature stripping tweezers, dia. 0.13 mm/.005 Inch (AWG 36). Stainless steel. Serrated finger grips for secure handling.
	**29Y40**	0.78	22	Stainless steel	Miniature stripping tweezers, dia. 0.08 mm/.003 Inch (AWG 40). Stainless steel. Serrated finger grips for secure handling.

4.724 Inch / 120 mm	Model	Weight		Material	Description
		oz.	g		
	**29W30**	0.99	28	Stainless steel	Stripping tweezers with synthetic fibre handle. For wires of dia. 0.25 – 0.3 mm / .010 – .011 Inch (AWG 30 – 28).For standard and Teflon® insulation.
	XB29W301				Spare blade for 29W30

Extraction tweezers

- Suitable for extracting contacts from the rear of a plug connector



4.724 Inch / 120 mm	Model	Weight		Material	Description
		oz.	g		
	**024C**	0.53	11	Stainless steel	Extraction tweezers for Sub-D connectors. Stainless steel. Outside Ø 2.15 mm/0.08 Inch (A), Inside Ø 1.75 mm/0.07 Inch (B), tip length 8 mm

Special tools

IC AND SMD TOOLS, FIBER-OPTIC TOOLS

IC and SMD tools

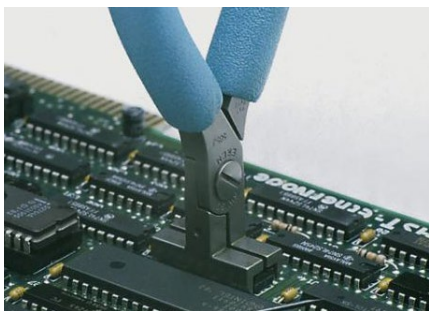
IC and SMD tools with precise fine adjustment for inserting, extracting, straightening and cutting IC and SMD components

Fibre optic tools

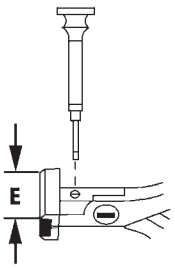
High-precision tools for optical fibers for professional stripping, suitable for cutting Kevlar® silks, VectranTM-sheathed wires, etc.

IC and SMD tools

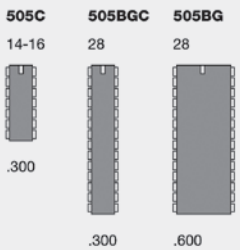
IC and SMD tools for inserting, extracting, straightening and cutting IC and SMD components



4.724 Inch / 120 mm



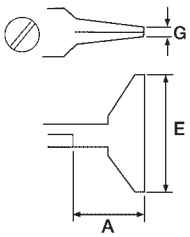
- Non-reflecting surface
- ESD-safe
- One screwdriver included for fine adjustments.

Model		E		Width		
		Inch	mm	Inch	mm	
505C		0.787	20	0.3	7.62	Inserting and extracting 14-16 pins
505BG		1.417	36	0.591	15	Inserting and extracting 28 pins
505BGC		1.417	36	0.300	7	Inserting and extracting pliers, 28 pins

Pliers for straightening

5.118 Inch / 130 mm

4.232 / 120 g



- Practical straightening tool, suitable for straightening contacts, DIL/IC connections.
- Non-reflecting surface
- ESD-safe
- Up to 16 connections possible.

Model			A		E		G	
			Inch	mm	Inch	mm	Inch	mm
808G			0.906	23	1.653	42	0.039	1

Tip cutter – straight short relieved head

4.331 Inch / 110 mm

1.693 oz. / 48 g

- Suitable for cutting SMD and micro-package contacts.
- High-precision tip cutter
- For connections of SMD micro-packages up to 0.25 mm / .010 inch, also for pitches smaller than 1/20".
- For µ pitches below 0.5 mm / .019 inch, you will need the 670EPF

Model	Cut	A		B		C		D	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm
670EP	 Flush	0.118	3	0.354	9	0.236	6	0.709	18

Tip cutter – angled narrow head

4.528 Inch / 115 mm
2.399 oz. / 68 g
30°

- High precision tip cutter, bent.
- Practical rework tool.
- For cutting DIL contacts directly on the component.
- Ideal for densely printed boards.
- Non-reflecting surface
- ESD-safe

Model	Cut	A		B		C		D		Max. cutting capability in mm		
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Hard wire	Medium hardness	Copper wire
593AE	Flush	0.157	4	0.433	11	0.236	6	1.024	26		ø 0,4	ø 1,0

3900KC

Kit for SMD work

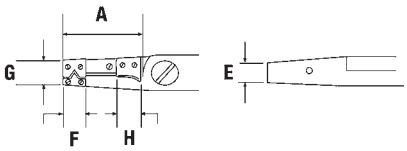
Order No. 3900KC

- For SMD assembly and repair applications.
- 6-pieces tool kit with monitored discharging ESD handles.
- Special tool steel.
- High-quality precision tweezers, non-magnetic.
- In an ESD-safe plastic case.

Scope of supply	Model	Description
	102ACA	SMD tweezers, angled 45°, with pointed tips for vertical application.
	103ACA	SMD tweezers, angled 45°, with slightly wider tips for vertical application.
	150SAMB	SMD tweezers, angled 40°, with round tips, dia. 1.2 – 2.5 mm / .047 – .098 Inch. Serrated finger grips for secure handling.
	150SAMF	SMD tweezers with round, very narrow tips, dia. 1.2 – 2.5 mm/ .047 – .098 Inch. Serrated finger grips for secure handling. For gripping cylindrical components, mini MELFs, etc.
	51SA	Precision tweezers, curved 30°, relieved. Very pointed tips. Relieved shape at front of handle provides excellent visibility of the area to be worked on.
	670EP	Tip cutter – straight short relieved head

High precision stripping pliers

Side stripping 0.06 mm – 0.6 mm .002 Inch – .023 Inch (AWG 42 – 24)



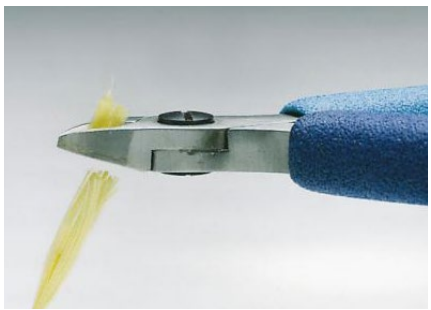
A = Jaw length
E = Width of tips
F = Depth of interchangeable blade
G = Total height of both tips
H = Length of cutting blade

4.724 Inch / 120 mm
2.82 / 80 g

- Robust, high-precision tools for use in electronics and aeronautical engineering
- The required diameter is set by means of screws
- Screwdriver and key are included
- Interchangeable blades
- ESD-safe
- Unique precision for damage-free stripping of fine wires.
- Suitable for all types of insulation, Teflon®, Tefzel and optical fibres.
- Unlimited stripping length thanks to side stripping
- Suitable for simple and precise stripping of optical fibres
- Non-reflecting surface

Model	A		E		F		G		H		Wire diameter	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
552S	0.82	21	0.24	6	0.24	6	0.43	11	0.354	9	0.002 - 0.024	0,06 - 0,6

Special applications: Kevlar® silks



4.528 Inch / 115 mm
2.36 oz. / 67 g

- Side cutter, suitable for cutting Kevlar® silks.
- Avoid any other application than cutting kevlar silks to not damage the tool

Model	Cut	A		B		C		D	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm
599F0		0.472	12	0.433	11	0.24	6	0.748	19

Special applications: Special tool steel

4.528 Inch / 115 mm

2.36 oz. / 67 g

- Side cutter for cutting Kevlar® silks, Vectran™-sheated wires, optical fibres and small stainless wires.
- Side cutter with cutting edges made from tungsten carbide.

Model	Cut	A		B		C		D	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm
599TF0	Semi-flush	0.472	12	0.43	11	0.24	6	0.748	19

Kits

SWISS HIGH PRECISION TOOLS IN A KIT

LARGE SELECTION
of tool kits with high-quality precision tools

OPTIMUM COMBINATION
of suitable precision tools for many applications, e.g. in microelectronics, medicine or biology

ESD-SAFE PLASTIC CASE
with padded foam inlay

3600KU

Erem Toolset Universal

Order No. 3600KU

- For use in electronics assembly, the watchmaking industry, medicine or dentistry.
- 11-piece tool kit with monitored discharging ESD handles.
- Special tool steel, non-reflecting surface, resharpenable (cutter).
- High-quality precision tweezers, non-magnetic, for assembly work in electronics and light engineering.
- Precision screwdriver with hardened, durable tips, for precision working in confined areas.
- In an ESD-safe plastic case.

Scope of supply	Model	Description
	2412E	Side cutter – oval head
	2442P	Flat nose pliers with smooth jaws and precision-machined edges.
	2ASASL	Precision tweezers with flat rounded tips for gripping components. Tip width 2 mm/.078 Inch. Same as 2ASA, but economy model.
	622NB	Side cutter – pointed relieved head
	AASA	Precision tweezers with fine but robust tips for standard applications.
	XP600	Precision-Screwdriver Set, 6 parts (4 screwdriver: 1,5 x 60 mm / .059 x 2.362 Inch, 2,0 x 60mm / .078 x 2.362 Inch, 2.5 x 60 mm / .098 x 2.362 Inch, 3,0 x 60 mm / .118 x 2.362 Inch, 2 Philipps No. 0 and No. 00)

3900KC

Kit for SMD work

Order No. 3900KC

- For SMD assembly and repair applications.
- 6-pieces tool kit with monitored discharging ESD handles.
- Special tool steel.
- High-quality precision tweezers, non-magnetic.
- In an ESD-safe plastic case.

Scope of supply	Model	Description
	102ACA	SMD tweezers, angled 45°, with pointed tips for vertical application.
	103ACA	SMD tweezers, angled 45°, with slightly wider tips for vertical application.
	150SAMB	SMD tweezers, angled 40°, with round tips, dia. 1.2 – 2.5 mm / .047 – .098 Inch. Serrated finger grips for secure handling.
	150SAMF	SMD tweezers with round, very narrow tips, dia. 1.2 – 2.5 mm/ .047 – .098 Inch. Serrated finger grips for secure handling. For gripping cylindrical components, mini MELFs, etc.
	51SA	Precision tweezers, curved 30°, relieved. Very pointed tips. Relieved shape at front of handle provides excellent visibility of the area to be worked on.
	670EP	Tip cutter – straight short relieved head

2400KMS

Erem 2400 MagicSense

Order No. 2400KMS

- For use in electronics, PCB assembly, wire and connection handling.
- 3-pieces tool kit.
- MagicSense moulded handle with soft touch for increased comfort and grip.
- Induction-hardened cutting edges in Rockwell hardness 64-65 HRc, high grade of hardness for exceptionally long life.
- High-grade tool steel, non-reflecting surface, ESD-safe, resharpenable
- In an ESD-safe plastic case.

Scope of supply	Model	Description
	2411P	Needle nose pliers with very precise, smooth and rounded jaws.
	2412E	Side cutter – oval head
	2482E	Tip cutter - angled narrow head. Suitable for working on printed-circuit boards, component connections, can be used in both 90° and 180° applications

3300TPS

Erem Tweezers Prime Selection

Order No. 3300TPS

- High-quality precision tweezers for use in microelectronics, light engineering, laboratory work, biology and medicine.
- 3-pieces tweezers kit.
- Special stainless steel, non-magnetic, non-rusting, acid-proof.
- In an ESD-safe plastic case.

Scope of supply	Model	Description
	2ASA	Precision tweezers with flat rounded tips for gripping components. Tip width 2 mm/.078 Inch.
	3SA	Precision tweezers with pointed tips for work in microelectronics.
	7SASL	Precision tweezers, curved, relieved, with pointed tips. Excellent handling in confined spaces. Same as 7SA, but economy model.

3400TSMDU

Erem SMD Tweezers - Universal

Order No. 3400TSMDU

- High-quality precision tweezers for SMD work with assorted shapes of chip, SOT, MELFs, mini MELFs, flatpacks.
- 4-piece tweezer kit.
- Blunted edges prevent PCB damage.
- Special stainless steel, non-magnetic, non-rusting, acid-proof.
- In an ESD-safe plastic case.

Scope of supply	Model	Description
	102ACAX	SMD tweezers, angled 45°, with pointed tips for vertical application. Model same as 102ACA, but reverse clamping action for easy holding.
	103ACA	SMD tweezers, angled 45°, with slightly wider tips for vertical application.
	150SAMF	SMD tweezers with round, very narrow tips, dia. 1.2 – 2.5 mm/ .047 – .098 Inch. Serrated finger grips for secure handling. For gripping cylindrical components, mini MELFs, etc.
	7SASL	Precision tweezers, curved, relieved, with pointed tips. Excellent handling in confined spaces. Same as 7SA, but economy model.

3500TP

Erem Premium Tweezers

Order No. 3500TP

- High-quality precision tweezers for microelectronics, light engineering and SMD work.
- 5-piece tweezer kit.
- Blunted edges prevent PCB damage.
- Special stainless steel, non-magnetic, non-rusting, acid-proof.
- In an ESD-safe plastic case.

Scope of supply	Model	Description
	102ACA	SMD tweezers, angled 45°, with pointed tips for vertical application.
	15AGW	Cutting tweezers with narrow oblique head. For soft wires up to dia. 0.25 mm/.010 Inch.
	2ASA	Precision tweezers with flat rounded tips for gripping components. Tip width 2 mm/.078 Inch.
	3SA	Precision tweezers with pointed tips for work in microelectronics.
	7SASL	Precision tweezers, curved, relieved, with pointed tips. Excellent handling in confined spaces. Same as 7SA, but economy model.

Originating from a tiny metalworking company in 1921, the Xcelite® brand of precision hand tools has been a favorite of service technicians for over 85 years. It is now known throughout the electronics industry for its full line of high-quality precision screwdrivers, nutdrivers, pliers, cutters, interchangeable-blade sets, specialized tools and kits.

Xcelite® by Weller®

Precision Tools Xcelite®

Screw- and nutdrivers, knifes and blades,
shear cutters and pliers, service kits and tool cases

Knives & Blades

Knives

	Order no.	Description	Size	
			Inch	mm
	XN100	Knife, Light duty for soft material	5 13/16	148
	**XN200**	Knife, Medium duty for hard material	5 3/4	146
	**XN210**	Knife, Heavy duty plastic handle for coars jobs	5 7/16	137
	**XNS100**	Light and medium duty knife set. Contains 10 assorted blades: XN100, XN200, XNB103 (2 pcs.), XNB105 (2 pcs.), XNB101, XNB203, XNB205 (2 pcs.), XNB201		

Blades for XN100

	Order No.	Description	Pack quantity
	**XNB101**	Blade, Standard	5
	**XNB103**	Blade, Fine pointed	5
	**XNB103B**	Blade, Fine pointed	100
	**XNB105**	Blade, Stencil	5

Blades for XN200 and XN210

	Order No.	Description	Pack quantity
	**XNB201**	Blade, Chisel	5
	**XNB203**	Blade, General purpose	5
	**XNB205**	Blade, Pointed	5

Shear cutters and pliers

Shear cutter - general purpose

- Low profile, general-purpose cutter
- Superior blade by-pass shear cutting action
- Greatly reduced mechanical shock delivered to the work
- ESD safe
- Soft grips and feature safety clips
- Flush cuts soft wire up to 20 AWG (0.8 mm)

Order no.	Description	Size	
		Inch	mm
170MN	Shearcutter - General purpose, 127 mm (5 Inch)	5	127
175MN	Shearcutter with safety clips, soft handles	5	127

Sheet metal Snip

Order no.	Description	Size	
		Inch	mm
86NCG	Snip, electronic	6.5	165

Wire Stripper & Cutters

- Adjustable for different wire strengths

Order no.	Description	Size	
		Inch	mm
100XV	Wire Stripper & Cutter, adjustable	5	127
101SNV	Wire Stripper & Cutter, spring-opening	5	127

Screwdriver and nutdriver sets

M60N

Mini Screwdriver Set with Slotted/ Phillips Screwdrivers (7 pcs.)

Order No. M60N

RATCHET MIDGET 5PCE KIT XL75V

Offset Ratches Screwdriver Set

Order No. XL75VN

PS88N

Hex Socket Screwdriver Set - Inch Size

Order No. PS88N

Scope of Supply	Order no.	Description	Length		Colour
			Inch	mm	
	P0	Screwdriver, Midget, Philipps No. 0	3.504	89	blue
	P141	Screwdriver, Midget, 1/8" (3,18 mm)	3.504	89	amber
	P181	Screwdriver, Midget, 1/8" (3,18 mm)	3.504	89	red
	P1N	Screwdriver, Midget, Philipps No. 1	3.504	89	brown
	P2	Screwdriver, Midget, Philipps No. 2	3.504	89	amber
	P3161	Screwdriver, Midget, 3/16" (4,76 mm)	3.504	89	orange
	P3321N	Screwdriver, Midget, 3/32" (2,38 mm)	3.504	89	green
	P5321	Screwdriver, Midget, 5/32" (3,97 mm)	3.504	89	black
	TA2	Torque amplifier handle			Black

PS89N

Hex Socket Set – Inch Size

Order No. PS89N

Scope of Supply	Order no.	Description	Length	
			Inch	mm
	P18	Screwdriver, Midget, Hex, 0,028" (0,71 mm)	3.504	89
	P19	Screwdriver, Midget, Hex, 0,035" (0,89 mm)	3.504	89
	P20	Screwdriver, Midget, Hex, 0,050" (1,27 mm)	3.504	89
	P21	Screwdriver, Midget, Hex, 1/16" (1,59 mm)	3.504	89
	P22N	Screwdriver, Midget, Hex, 5/64" (1,98 mm)	3.504	89
	P23	Screwdriver, Midget, Hex, 3/32" (2,38 mm)	3.504	89
	P24	Screwdriver, Midget, Hex, 1/8" (3,18 mm)	3.504	89
	P764	Screwdriver, Midget, Hex, 7/64" (2,78 mm)	3.504	89
	TA2	Torque amplifier handle		

PS90MMN

Hex Socket Set – Metric Size

Order No. PS90MMN

Scope of Supply	Order no.	Description	Length	
			Inch	mm
	P71	Screwdriver, Midget, Hex, 1,27 mm	3.504	89
	P72	Screwdriver, Midget, Hex, 1,5 mm	3.504	89
	P73	Screwdriver, Midget, Hex, 0,89 mm	3.504	89
	P74	Screwdriver, Midget, Hex, 2,5 mm	3.504	89
	P75	Screwdriver, Midget, Hex, 3 mm	3.504	89
	P76	Screwdriver, Midget, Hex, 4 mm	3.504	89
	P77	Screwdriver, Midget, Hex, 5 mm	3.504	89
	P78	Screwdriver, Midget, Hex, 0,89 mm	3.504	89
	TA2	Torque amplifier handle		

PS120N

Nutdriver Set – Inch Size

Order No. PS120N

Scope of Supply	Order no.	Description	Length		Colour
			Inch	mm	
	P10N	Nutdriver, Midget, 5/16" (7,94 mm)	3.504	89	amber
	P11	Nutdriver, Midget, 11/32" (8,73 mm)	3.504	89	Green
	P12	Nutdriver, Midget, 3/8" (9,53 mm)	3.504	89	blue
	P3	Nutdriver, Midget, 3/32" (2,38 mm)	3.504	89	green
	P3321N	Screwdriver, Midget, 3/32" (2,38 mm)	3.504	89	green
	P4N	Nutdriver, Midget, 1/18" (3,18 mm)	3.504	89	red
	P5N	Nutdriver, Midget, 5/32" (3,97 mm)	3.504	89	amber
	P6N	Nutdriver, Midget, 3/16" (4,76 mm)	3.504	89	black
	P7	Nutdriver, Midget, 7/32" (5,56 mm)	3.504	89	brown
	P8N	Nutdriver, Midget, 1/4" (6,35 mm)	3.504	89	red
	P9	Nutdriver, Midget, 9/32" (7,14 mm)	3.504	89	orange
	TA2	Torque amplifier handle			Black

PS121MMN

Nutdriver Set – Metric Size

Order No. PS121MMN

Scope of Supply	Order no.	Description	Length	
			Inch	mm
	P10MM	Nutdriver, Midget, 10 mm (0,394")	3.504	89
	P35MM	Nutdriver, Midget, 3,5 mm (0,138")	3.504	89
	P3MM	Nutdriver, Midget, 3 mm (0,118")	3.504	89
	P45MM	Nutdriver, Midget, 4,5 mm (0,177")	3.504	89
	P4MM	Nutdriver, Midget, 4 mm (0,157")	3.504	89
	P55MM	Nutdriver, Midget, 5,5 mm (0,217")	3.504	89
	P5MM	Nutdriver, Midget, 5 mm (0,197")	3.504	89
	P6MM	Nutdriver, Midget, 6 mm (0,236")	3.504	89
	P7MM	Nutdriver, Midget, 7 mm (0,276")	3.504	89
	P8MM	Nutdriver, Midget, 8 mm (0,315")	3.504	89
	TA2	Torque amplifier handle		

Service kits and sets

99MPN

Multi-purpose Tool Kit

Order No. 99MPN

Scope of Supply	Order No.	Description
	9912N	Blade, Nutdriver, 3/8"
	9914	Blade, Nutdriver, 7/16"
	9916N	Blade, Nutdriver, 1/2"
	991X	Ratching Handle
	9920N	Blade, Screwdriver, Allen Hex Type, 0,050"
	9921N	Blade, Screwdriver, Allen Hex Type, 1/16"
	9922N	Blade, Screwdriver, Allen Hex Type, 5/64"
	9923N	Blade, Screwdriver, Allen Hex Type, 3/32"
	9924N	Blade, Screwdriver, Allen Hex Type, 1/8"
	9925N	Blade, Screwdriver, Allen Hex Type, 5/32"
	9926N	Blade, Screwdriver, Allen Hex Type, 3/16"
	994N	T-Handle, black
	9961N	Blade, Bristol 6-flute Multiple Spline, 0,048"
	996N	Blade, Nutdriver, 3/16"
	99764N	Blade, Screwdriver, Allen Hex Type, 7/64"
	997N	Blade, Nutdriver, 7/32"
	99820N	Blade, Screwdriver, Phillips No. 0
	99821N	Blade, Screwdriver, Phillips No. 1
	99822N	Blade, Screwdriver, Phillips No. 2
	998MN	Blade, Nutdriver, magnetic, 1/4"
	998N	Blade, Nutdriver, 1/4"
	99X5N	Extension 4"
	T9910N	Blade, Nutdriver, 5/16"
	T9911N	Blade, Nutdriver, 11/32"
	T99964N	Blade, Screwdriver, Allen Hex Type, 9/64"
	T999N	Blade, Nutdriver, 9/32"

99SPC

Personal Computer Repair Kit

Order No. 99SPC

Scope of Supply	Order No.	Description
	9910XTDN	Torx Blade No. 10
	9915XTDN	Torx Blade No. 15
	991X	Ratching Handle
	996N	Blade, Nutdriver, 3/16"
	99811N	Blade, Screwdriver, Slotted, 3/16"
	99820N	Blade, Screwdriver, Phillips No. 0
	99821N	Blade, Screwdriver, Phillips No. 1
	998N	Blade, Nutdriver, 1/4"
	E1	IC-Inserter
	R1	Gripping Tool
	T1	Tweezer
	X1	IC-Extractor

99PS40N

Allen Hex Set – Inch Size

Order No. 99PS40N

Scope of Supply	Order No.	Description
	991X	Ratching Handle
	9920N	Blade, Screwdriver, Allen Hex Type, 0,050"
	9921N	Blade, Screwdriver, Allen Hex Type, 1/16"
	9922N	Blade, Screwdriver, Allen Hex Type, 5/64"
	9923N	Blade, Screwdriver, Allen Hex Type, 3/32"
	9924N	Blade, Screwdriver, Allen Hex Type, 1/8"
	9925N	Blade, Screwdriver, Allen Hex Type, 5/32"
	9926N	Blade, Screwdriver, Allen Hex Type, 3/16"
	99764N	Blade, Screwdriver, Allen Hex Type, 7/64"
	99X5N	Extension 4"
	T99964N	Blade, Screwdriver, Allen Hex Type, 9/64"

99PS41MMN

Allen Hex Set – Metric Size

Order No. 99PS41MMN

Scope of Supply	Order No.	Description
	991X	Ratching Handle
	9971MMN	Blade, Screwdriver, Allen Hex, 1,27 mm
	9972MMN	Blade, Screwdriver, Allen Hex, 1,5 mm
	9973MMN	Blade, Screwdriver, Allen Hex, 2 mm
	9974MMN	Blade, Screwdriver, Allen Hex, 2,5 mm
	9975MMN	Blade, Screwdriver, Allen Hex, 3 mm
	9976MMN	Blade, Screwdriver, Allen Hex, 4 mm
	9977MM	Blade, Screwdriver, Allen Hex, 5 mm
	99X5N	Extension 4"

99PS40BPN

Ballpoint Screwdriver Set – Inch Size

Order No. 99PS40BPN

Scope of Supply	Order No.	Description
	991X	Ratching Handle
	9920BPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 0,050"
	9921BPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 1/16"
	9922BPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 5/64"
	9923BPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 3/32"
	9924BPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 1/8"
	9925BPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 5/32"
	9926BPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 3/16"
	99764BPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 7/64"
	99964BPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 9/64"
	99X5N	Extension 4"

99PS41MMBPN

Ballpoint Screwdriver Set Metric Size

Order No. 99PS41MMBPN

Scope of Supply	Order No.	Description
	991X	Ratching Handle
	9971MMBPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 1,27 mm
	9972MMBPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 1,5 mm
	9973MMBPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 2 mm
	9974MMBPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 2,5 mm
	9975MMBPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 3 mm
	9976MMBPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 4 mm
	9977MMBPN	Blade, Screwdriver, Allen Hex Type, Ballpoint, 5 mm
	99X5N	Extension 4"

99PS50N

Screwdriver & Nutdriver Set

Order No. 99PS50N

Scope of Supply	Order No.	Description
	9912N	Blade, Nutdriver, 3/8"
	991X	Ratching Handle
	99250N	Blade, Screwdriver, Slotted, 1/4"
	996N	Blade, Nutdriver, 3/16"
	997N	Blade, Nutdriver, 7/32"
	99811N	Blade, Screwdriver, Slotted, 3/16"
	99821N	Blade, Screwdriver, Phillips No. 1
	99822N	Blade, Screwdriver, Phillips No. 2
	998N	Blade, Nutdriver, 1/4"
	99X5N	Extension 4"
	T9910N	Blade, Nutdriver, 5/16"
	T9911N	Blade, Nutdriver, 11/32"
	T999N	Blade, Nutdriver, 9/32"

99PS51MMN

Nutdriver Set – Metric Size

Order No. 99PS51MMN

Scope of Supply	Order No.	Description
	9910MMN	Blade, Nutdriver, 10 mm
	9911MMN	Blade, Nutdriver, 11 mm
	991X	Ratching Handle
	9945MMN	Blade, Nutdriver, 4,5 mm
	994MMN	Blade, Nutdriver, 4 mm
	9955MMN	Blade, Nutdriver, 5,5 mm
	995MMN	Blade, Nutdriver, 5 mm
	996MMN	Blade, Nutdriver, 6 mm
	997MM	Blade, Nutdriver, 7 mm
	998MMN	Blade, Nutdriver, 8 mm
	999MMN	Blade, Nutdriver, 9 mm
	99X5N	Extension 4"

99PS60N

Bristol Multiple Spline Socket Screwdriver Set

Order No. 99PS60N

Scope of Supply	Order No.	Description
	991X	Ratching Handle
	9961N	Blade, Bristol 6-flute Multiple Spline, 0,048"
	9962N	Blade, Bristol 6-flute Multiple Spline, 0,060"
	9963N	Blade, Bristol 4-flute Multiple Spline, 0,069"
	9964N	Blade, Bristol 6-flute Multiple Spline, 0,072"
	9965	Blade, Bristol 4-flute Multiple Spline, 0,076"
	9966N	Blade, Bristol 6-flute Multiple Spline, 0,096"
	9967N	Blade, Bristol 6-flute Multiple Spline, 0,111"
	9968	Blade, Bristol 6-flute Multiple Spline, 0,145"
	9969N	Blade, Bristol 6-flute Multiple Spline, 0,183"
	99X5N	Extension 4"

99XTD7N

Torx Screwdriver Tool Set

Order No. 99XTD7N

Scope of Supply	Order No.	Description
	9910XTDN	Torx Blade No. 10
	9915XTDN	Torx Blade No. 15
	991X	Ratching Handle
	9920XTDN	Torx Blade No. 20
	9925XTDN	Torx Blade No. 25
	9927XTD	Torx Blade No. 27
	9930XTD	Torx Blade No. 30

Tool cases

XL70

Offset Ratchet Screwdriver Set

Order No. XL70N

Scope of Supply	Order No.	Description
	XL10	Allen Hex Screw Bit 5/32" (3,97 mm)
	XL12	Allen Hex Screw Bit 3/16" (4,76 mm)
	XL14	Allen Hex Screw Bit 7/32" (5,56 mm)
	XL16	Allen Hex Screw Bit 1/4" (6 mm)
	XL17	Slotted Screw Bit 1/4" (6 mm)
	XL18	Allen Hex Screw Bit 5/16" (7,94 mm)
	XL20	Phillips Screw Bit No. 1
	XL21	Phillips Screw Bit No. 2
	XL24	Adapter bit
	XL25	Slotted Screw Bit 3/16" (4,76 mm)
	XL27	Offset Ratchet, reversible
	XL3	Allen Hex Screw Bit 0,050" (1,27 mm)
	XL4	Allen Hex Screw Bit 1/16" (1,54 mm)
	XL5	Allen Hex Screw Bit 5/64" (1,98 mm)
	XL50X	Screwdriver Extension
	XL6	Allen Hex Screw Bit 3/32" (2,38 mm)
	XL7	Allen Hex Screw Bit 7/64" (1,54 mm)
	XL8	Allen Hex Screw Bit 1/8" (3,17 mm)
	XL9	Allen Hex Screw Bit 9/64" (3,57 mm)