

# Precision tools

<b>Side cutters and tip cutters</b>	<b>262</b>
Series 600 Micro	268
Series 2400 MagicSense	270
Series 500 Medium	273
Series 800 Maxi	278
Tungsten-carbide cutters	280
Special applications	283
Pneumatic side and tip cutters	285
Distance cutters	287
<b>Pliers</b>	<b>290</b>
Series 500 Medium	292
Series 2400 MagicSense	295
Stripping pliers	297
Forming pliers	299
<b>Tweezers</b>	<b>304</b>
Precision tweezers	306
SMD tweezers	314
Locking gripping tweezers	316
Wafer tweezers	317
Cutting tweezers	318
Stripping tweezers	319
Extraction tweezers	320
<b>Special tools</b>	<b>321</b>
IC and SMD tools	322
High-precision tools for optical fibers	325
Vacuum micromanipulator	327
<b>Kits</b>	<b>329</b>



## Precision tools

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





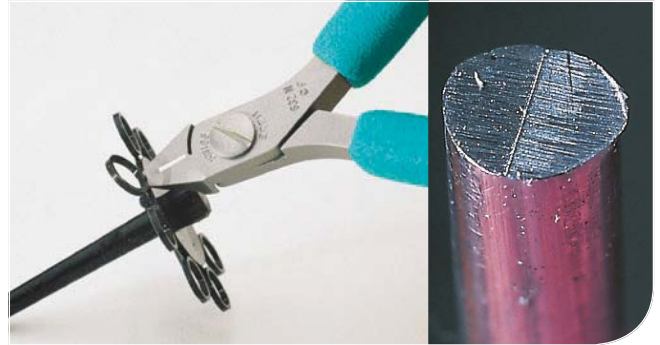
# Special applications

## 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.

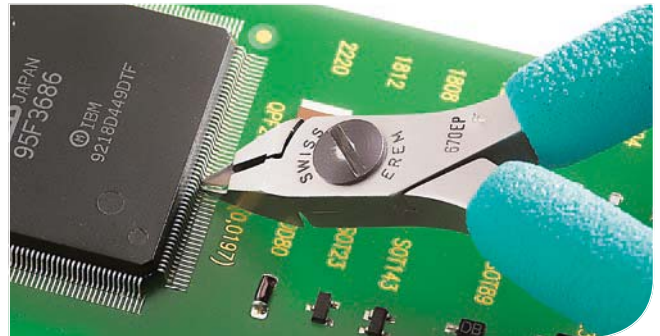


## Tip cutters to remove fine pitch SMD ICs

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.

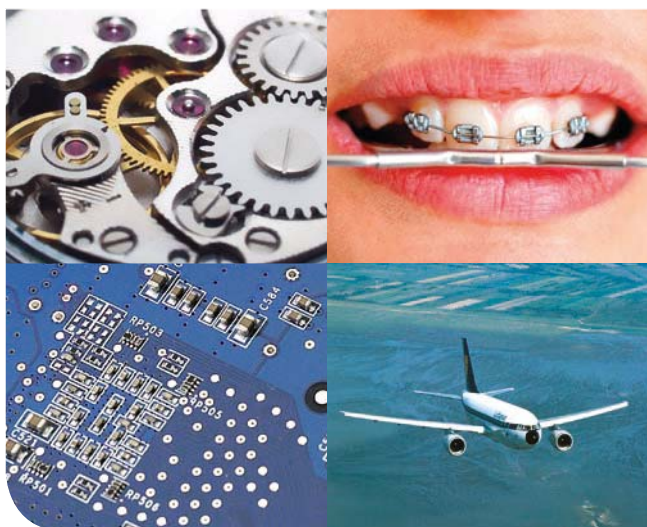


## High-precision side cutters for cutting stainless wires

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

A further application lies in telecommunications, i.e. working on fiber-optic cables, Kevlar<sup>®</sup> 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.

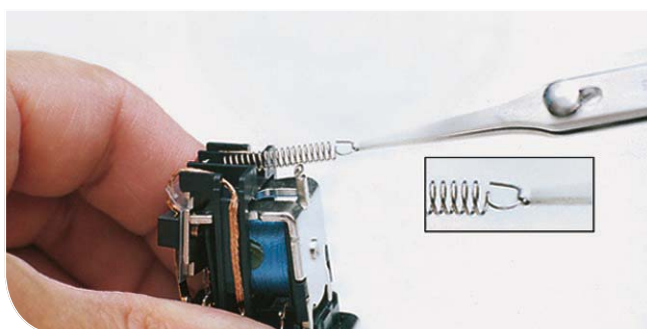
High-precision tweezers are particularly suitable for analysis applications and the handling of tissues, fine threads and other very small objects.



### **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

### 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.

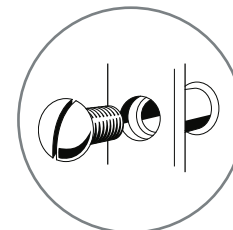
- Reduce costs thanks to long life
- Constant spring force
- Guarantees more than 1 million operations



### 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
- 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 special material selection

### 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.



### ESD-safe

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



**+** SAFE, RELIABLE AND FAST OPERATION BY PRECISE CUTS

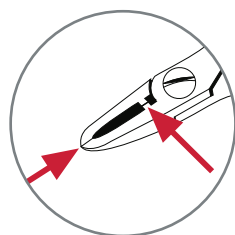
**Ergonomically shaped handles**

- For high comfort, better grip and added safety.

**EMOS maximum opening stop**

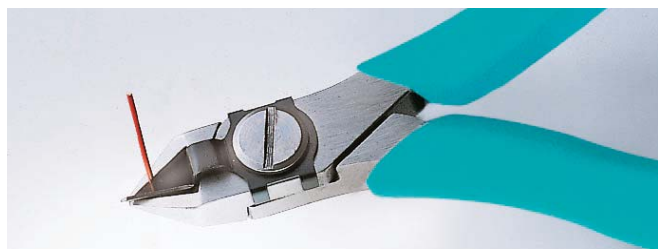
- Limits the cutting-edge tips from opening more than 5 mm/197 inch. The limited extent to which the handles can open prevents user hand fatigue.

**+** 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 up-to three times. Carriage charges will apply.

### Replacement parts

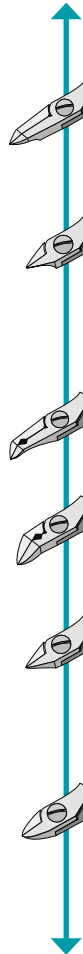
Erem cutters and pliers and their component parts are warranted against manufacturing defects. Magic springs, precision joint components are available as spare parts.



# Choosing the right tool

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

Visibility and accessibility



High cutting ability



# Choosing the right tool

Size	<b>Micro</b> Series 600	<b>Medium</b> Series 2400, Series 500	<b>Maxi</b> Series 800
Head shape	 <b>Oval head</b>	 <b>Tapered head</b>	 <b>Pointed relieved head</b>
Cut	 <b>Semi-flush</b>	 <b>Flush</b>	 <b>Super Full Flush</b>
Wire quality	Piano wire, stainless spring steel wire, material 1.4310, tensile strength 2000–2400 MPa Hard wire, stainless steel wire, material 1.4301, tensile strength 1800 MPa Medium-hard wire, stainless steel wire, material 1.4301, tensile strength 800 MPa Soft wire, copper, aluminium, tensile strength 250 MPa		

Model	Cut	Cutting capability																					
		mm	0,03	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0	1,1	1,2	1,3	1,4	1,5	1,6	1,7	1,8	1,9	
	Inch	.001	.003	.007	.011	.015	.019	.023	.027	.031	.035	.039	.043	.047	.051	.055	.059	.062	.066	.070	.074		
<b>Micro Series 600</b>																							
	<b>612N</b> Semi-flush																						
	<b>622N</b> Flush																						
	<b>632N</b> Super Full Flush																						
	<b>622NA</b> Flush																						
	<b>622NB</b> Flush																						
	<b>676E</b> Flush																						
	<b>776E</b> Super Full Flush																						
	<b>632NCF</b> Super Full Flush	Only for soft materials: silicone, rubber, etc.																					
	<b>670E</b> Flush																						
	<b>670EP</b> Flush	for micro housing																					
	<b>670EPF</b> Flush	Only for micro pitches under 0.5 mm / .019 Inch																					

Model	Cut	Cutting capability																					
		mm	0,03	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0	1,1	1,2	1,3	1,4	1,5	1,6	1,7	1,8	1,9	
	Inch	.001	.003	.007	.011	.015	.019	.023	.027	.031	.035	.039	.043	.047	.051	.055	.059	.062	.066	.070	.074		
<b>Medium Series 2400 MagicSense</b>																							
	<b>2412E</b> Semi-flush																						
	<b>2422E</b> Flush																						
	<b>2432E</b> Super Full Flush																						
	<b>2477E</b> Flush																						
	<b>2403E 30°</b> Flush																						
	<b>2404E 30°</b> Flush																						
	<b>2482E 45°</b> Flush																						
	<b>2475E 45°</b> Flush																						
	<b>2470E</b> Flush																						





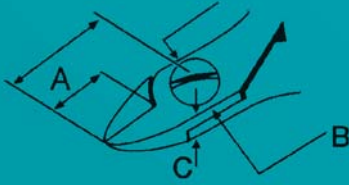
Model	Cut	mm Inch	Cutting capability																
			0,03 .0001	0,1 .003	0,2 .007	0,3 .011	0,4 .015	0,5 .019	0,6 .023	0,7 .027	0,8 .031	0,9 .035	1,0 .039	1,1 .043	1,2 .047	1,3 .051	1,4 .055	1,5 .059	1,6 .062
<b>Medium Series 500</b>																			
	512N	Semi-flush	[Cutting capability bars]																
	512E	Semi-flush	[Cutting capability bars]																
	522N	Flush	[Cutting capability bars]																
	599E	Flush	[Cutting capability bars]																
	532N	Super Full Flush	[Cutting capability bars]																
	595E	Flush	[Cutting capability bars]																
	577E	Flush	[Cutting capability bars]																
	503E	Flush	[Cutting capability bars]																
	504AE	Flush	[Cutting capability bars]																
	555E 35°	Flush	[Cutting capability bars]																
	572E 40°	Flush	[Cutting capability bars]																
	582E 45°	Flush	[Cutting capability bars]																
	582EW	Flush	[Cutting capability bars]																
	593AE 30°	Flush	[Cutting capability bars]																
	575E 45°	Flush	[Cutting capability bars]																
	592E	Flush	[Cutting capability bars]																
	792E	Super Full Flush	[Cutting capability bars]																
	570E	Flush	[Cutting capability bars]																
	573E	Flush	For vertical cutting																

Model	Cut	mm Inch	Cutting capability																
			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
<b>Maxi Series 800</b>																			
	812N	Semi-flush	[Cutting capability bars]																
	896E	Semi-flush	[Cutting capability bars]																
	822N	Flush	[Cutting capability bars]																
	886E	Flush	[Cutting capability bars]																
	884E	Flush	[Cutting capability bars]																

Model	Cut	mm Inch	Cutting capability																
			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
<b>Tungsten-carbide cutters</b>																			
	622TX	Flush	[Cutting capability bars]																
	599T	Semi-flush	[Cutting capability bars]																
	599TF	Flush	[Cutting capability bars]																
	595T	Semi-flush	[Cutting capability bars]																
	595TF	Flush	[Cutting capability bars]																
	2476TX1	Flush	[Cutting capability bars]																
	576TX1	Flush	[Cutting capability bars]																
	2476TX	Flush	[Cutting capability bars]																
	576TX	Flush	[Cutting capability bars]																
	503ET 30°	Semi-flush	[Cutting capability bars]																
	503ETF 30°	Semi-flush	[Cutting capability bars]																




# 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
- It is robust and size for size 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
<b>612N</b>	 Semi Flush	0.354	9	0.354	9	0.236	6	0.590	15	Ø 0,5	Ø 0,8	Ø 1,3
<b>T622N</b>	 Flush	0.354	9	0.354	9	0.236	6	0.590	15	-	Ø 0,8	Ø 1,3
<b>632N</b>	 Super full flush	0.354	9	0.354	9	0.236	6	0.590	15	-	Ø 0,7	Ø 1,3
<b>622NA</b>	 Flush	0.354	9	0.354	9	0.236	6	0.590	15	-	Ø 0,7	Ø 1,0







## Tip 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	Copper wire
622NB	 Flush	0.354	9	0.354	9	0.236	6	0.590	15	-	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	 Super full flush	0.354	9	0.354	9	0.236	6	0.590	15	-	Ø 0,6	Ø 0,8
632NCF	 Super full flush	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

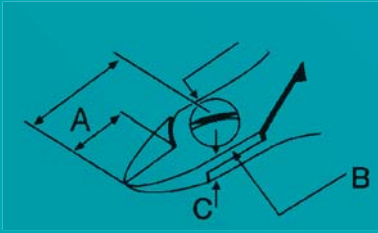
1.69 oz. / 48 g

- 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	0.354	9	0.354	9	0.236	6	0.709	18	-	Ø 0,5	Ø 0,8
670EP	 Flush	0.354	9	0.354	9	0.236	6	0.709	18	-	Ø 0,5	Ø 0,6
670EPF	 Flush	0.354	9	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 size for size 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	Super full flush	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
2404E	Flush	0.354	9	0.433	11	0.236	6	0.787	20	-	Ø 0,8	Ø 1,3
											wide, robust head, fine cut	
											same as 2403E, but with 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	1.024	20	-	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



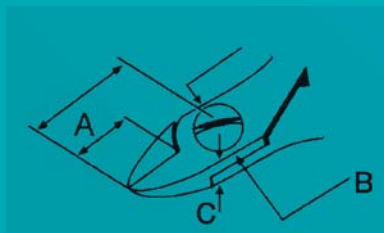
5.512 Inch / 140 mm  
 2.539 oz. / 72 g

- 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
2676E	Flush	0.354	9	0.354	9	0.236	6	0.590	15	-	Ø 0,6 mm / .023 Inch	Ø 0,8 mm / .031 Inch



# 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 size for size 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	0.256	6.5	0.748	19	Ø 0,5	Ø 1,0	Ø 1,6
512E	 Semi Flush	0.472	12	0.433	11	0.256	6.5	0.748	19	Ø 0,5	Ø 1,0	Ø 1,6 burnished head
522N	 Flush	0.472	12	0.433	11	0.256	6.5	0.748	19	-	Ø 1,0	Ø 1,6
599E	 Flush	0.472	10	0.433	11	0.256	6.5	0.669	17	-	Ø 1,0	Ø 1,6 short, robust head
532N	 Super full flush	0.472	10	0.433	11	0.256	6.5	0.748	19	-	Ø 0,8	Ø 1,6



## Side cutter - tapere 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	0.256	6.5	0.748	19	-	Ø 1,0	Ø 1,3 tapered head
577E	Flush	0.472	10	0.433	11	0.256	6.5	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	0.256	6.5	0.748	19	-	Ø 1,0	Ø 1,6 wide, robust head
504AE	Flush	0.354	9	0.433	11	0.256	6.5	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	6.5	0.945	24	-	Ø 0,6	Ø 1,3




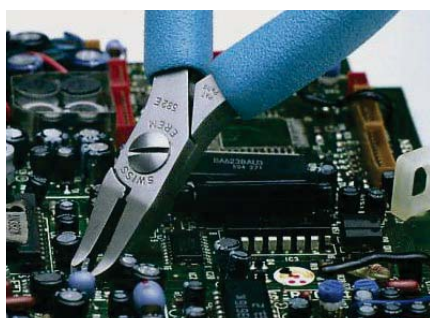
 4.528 Inch / 115 mm

 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	0.256	6.5	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	0.256	6.5	1.024	26	-	Ø 0,6	Ø 1,3



## Side cutters and tip cutters | Series 500 Medium



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	0.256	6.5	1.024	26	-	Ø 0,6	Ø 1,3



4.528 Inch / 115 mm

2.399 oz. / 68 g

- 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
- One screwdriver included for fine adjustments.

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	0.256	6.5	1.024	26		Ø 0,4	Ø 1,0



4.528 Inch / 115 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	0.256	6.5	0.866	22	-	Ø 0,2	Ø 0,6





## Tip 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	0.256	6.5	0.748	19	-	Ø 0,4	Ø 0,8
792E	 Super full flush	0.472	12	0.433	11	0.256	6.5	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	0.256	6.5	1.142	29	-	Ø 0,6	Ø 1,2

## Tip cutter - straight head for vertical use



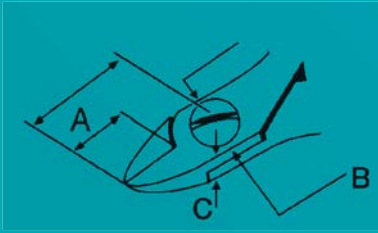
4.724 Inch / 120 mm  
2.363 oz. / 67 g

- 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	0.256	6.5	1.142	29	-	Ø 0,4	Ø 0,6



# 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 size for size 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
<b>812N</b>	 Semi Flush	0.590	15	0.531	13.5	0.295	7.5	0.827	21	Ø 0,6	Ø 1,2	Ø 1,8
<b>896E</b>	 Semi Flush	0.590	15	0.531	13.5	0.295	7.5	0.827	21	Ø 0,6	Ø 1,2	Ø 1,8
<b>822N</b>	 Flush	0.590	15	0.531	13.5	0.295	7.5	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	0.295	7.5	0.827	21	-	Ø 1,0	Ø 1,8


## Tip cutter - pointed relieved head



 4.724 Inch / 120 mm

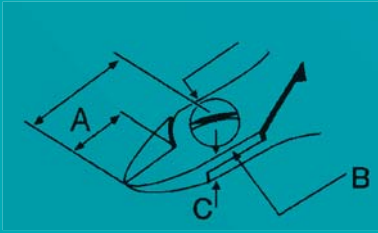
 2.857 oz. / 81 g

- 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	0.295	7.5	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 size for size offers the highest cutting capacity.

Model	Cut	A		B		C		D		Max. cutting capability in mm			
		Inch	mm	Inch	mm	Inch	mm	Inch	mm	Piano wire	Hard wire	Medium hardness	Copper wire
<b>622TX</b>	 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
<b>599T</b>	 Flush	0.472	12	0.433	11	0.256	6.5	0.748	19	Ø 0,6	Ø 0,8	Ø 1,0	Ø 1,5
<b>599TF</b>	 Semi Flush	0.472	12	0.433	11	0.256	6.5	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	0.256	6.5	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	6.5	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
2447P					9		6.5						
2448P					-		-						
576TX1	 Flush	0.433	11	0.433	11	0.256	6.5	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

 2.36 oz. / 67 g


- This is the narrowest head shape.
- The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.
- Series 2400 MagicSense model

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	0.256	6.5	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°**

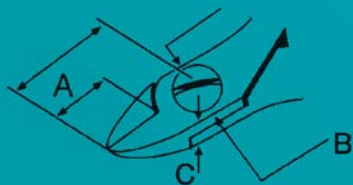
- The angled head provides for precise cuts at different working angles.

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
<b>503ET</b>	 Semi Flush	0.354	9	0.433	11	0.256	6.5	0.748	19	Ø 0,4	Ø 0,6	Ø 0,8	Ø 1,2
<b>503ETF</b>	 Flush	0.354	9	0.433	11	0.256	6.5	0.787	20	Ø 0,4	Ø 0,6	Ø 0,8	Ø 1,2



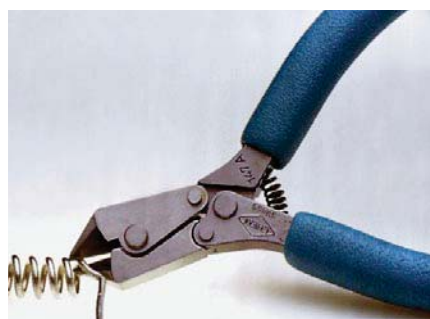


# Special applications



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

## Special applications: hard wires



4.724 Inch / 120 mm  
 3.527 oz. / 100 g

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

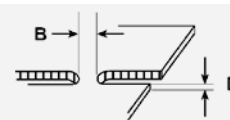
Model	Cut	A		B		C		Max. cutting capacity in mm
		Inch	mm	Inch	mm	Inch	mm	
147A	Semi Flush	0.472	12	0.413	10.5	0.295	7.5	Copper wire Ø 1,8 for cutting hard wires with minimal effort

## Special applications: cutting printed-circuit boards



4.528 Inch / 115 mm  
 2.787 oz. / 79 g

Model	Cut	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.
- Side cutter, suitable for cutting Kevlar® silks, Vectran™-sheathed wires, optical fibres and small stainless wires.

Model	Cut	B		B		C		D	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm
599F0		0.472	12	0.433	11	0.256	6.5	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™-sheathed wires, optical fibres and small stainless wires.
- Side cutter with cutting edges made from tungsten carbide.

Model	Cut	B		B		C		D	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm
599TF0	Semi Flush	0.472	12	0.413	10.5	0.256	6.5	0.748	19



# Pneumatic side and tip cutters



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

## 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 Copper wire Ø 1,6
		Inch	mm	Inch	mm	Inch	mm	
1512N	 Semi Flush	0.394	10	0.413	10.5	0.256	6.5	
1522N	 Flush	0.394	10	0.413	10.5	0.256	6.5	




## 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 Copper wire Ø 1,4
		Inch	mm	Inch	mm	Inch	mm	
1522NA	 Flush	0.354	9	0.413	10.5	0.256	6.5	

## 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 Copper wire Ø 1,2
		Inch	mm	Inch	mm	Inch	mm	
1522NB	 Flush	0.354	9	0.413	10.5	0.256	6.5	


## 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 Copper wire Ø 1,2
		Inch	mm	Inch	mm	Inch	mm	
1503E	 Flush	0.472	12	0.413	10.5	0.256	6.5	



# Distance cutters



## 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	Semi 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



## 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 Copper wire
		Inch	mm	Inch	mm	Inch	mm	
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

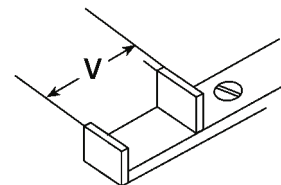
## Distance cutter, variable cutting length

Distance cutter, variable cutting length from 1.2 mm/ 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		Copper wire
		Inch	mm	Inch	mm	Inch	mm	
530E15A	 Flush	0.787	20	0.177	4.5	0,047 - 0,236	1,2 - 6	Ø 1.2

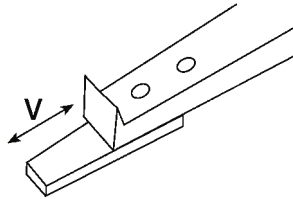


# Distance cutter - variable cutting length


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		Copper wire Ø 0.8
		Inch	mm	Inch	mm	Inch	mm	
573EB	 Flush	0.787	20	0.177	4.5	0 - 0,197	0 - 5	

# 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.

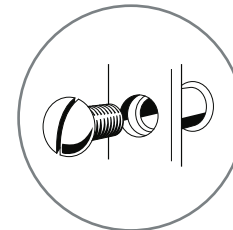
- Reduce costs thanks to long life
- Constant spring force
- Guarantees more than 1 million operations



### 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.





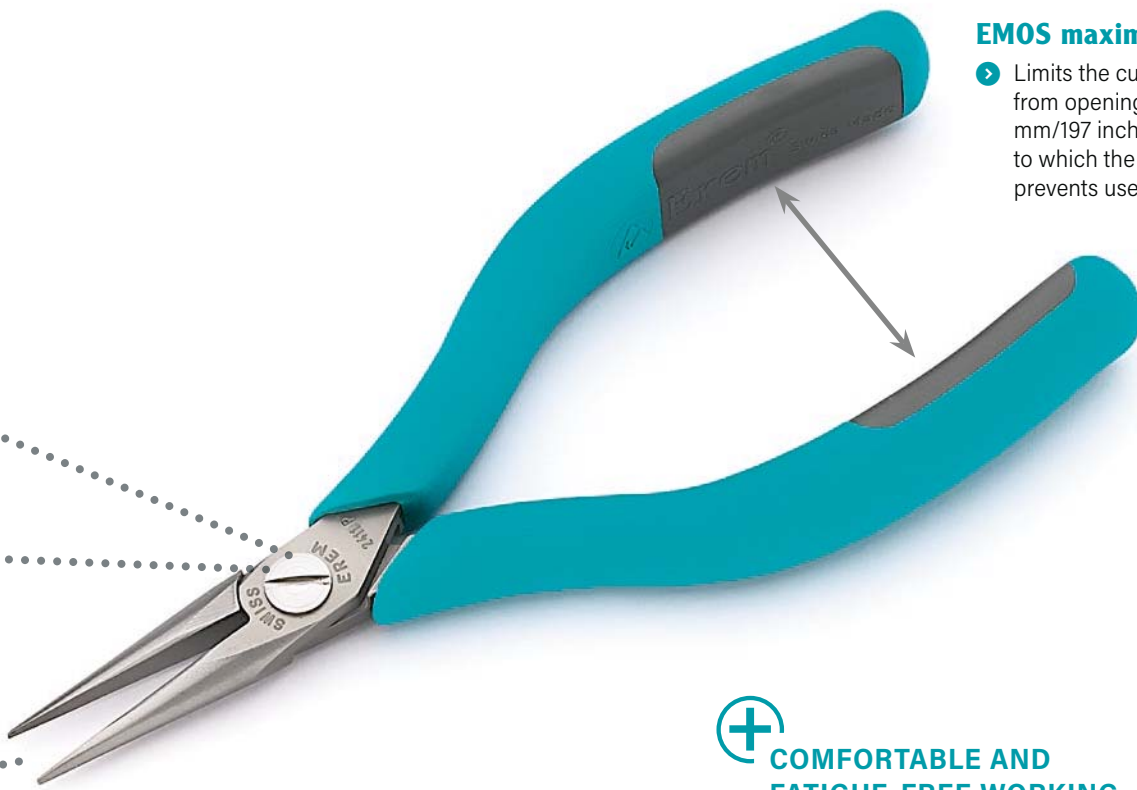
**+** WIDE VARIETY OF HEAD SHAPES

**Ergonomically shaped handles**

- For high comfort, better grip and added safety

**EMOS 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.

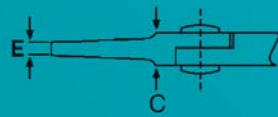
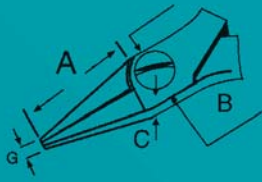


**ESD-safe**

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	0.35	9	0.26	6.5	0.031	Ø 0,8	0.063	1.6
546E		0.70 + 0.236	18 + 6	-	-	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	0.35	9	0.26	6.5	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	0.35	9	0.26	6.5	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	0.35	9	0.26	6.5	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	0.35	9	0.26	6.5	0.039	1	0.055	1.4

## Chain nose pliers with inside-serrated jaws for secure handling



4.724 Inch / 120 mm

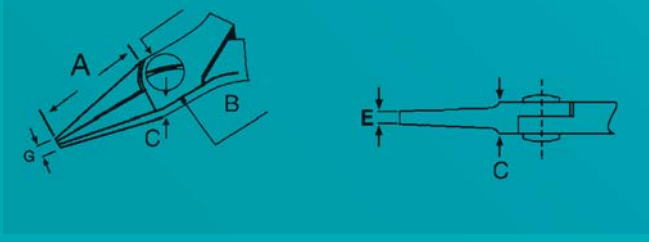
2.64 / 67 g

- 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
2411PD		1.32	33.5	0.43	11	0.24	6	0.039	1	0.047	1.2



# 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

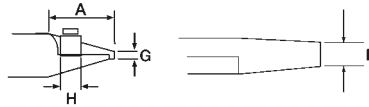
## High precision stripping pliers

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

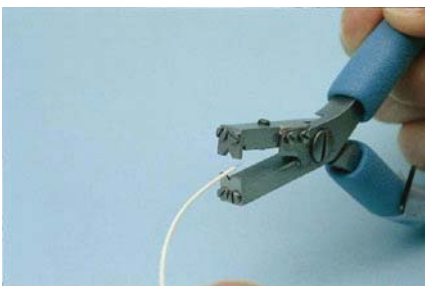


A = jaw length  
E = Width of tips  
G = Total height of both tips  
H = Length of cutting blade

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

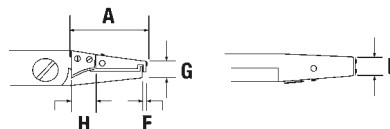
Model	A		E		G		H		Wire diameter	
	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm
510AE	0.83	21	0.20	5	0.16	4	0.28	7	0,010 - 0,040	0,25 - 1,02

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



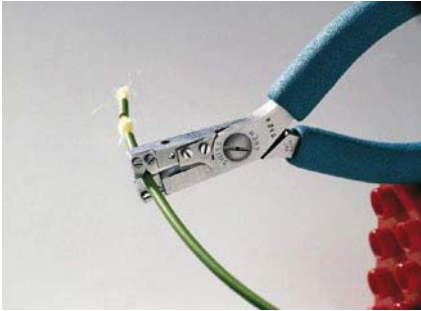
A = Jaw length  
E = Width of tips  
F = Depth of interchangeable blade  
G = Total height of both tips  
H = Length of cutting blade

- 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	0.26	6.5	0.39	1	0.43	11	0.35	9	0,002 - 0,023	0,06 - 0,6

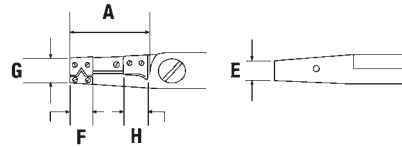


### Side stripping 0.06 mm - 0.6 mm .002 Inch - .023 Inch (AWG 42 - 24)



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.
- 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
<b>552S</b>	0.82	21	0.26	6.5	0.264	6.7	0.43	11	0.354	9	0,002 - 0,024	0,06 - 0,6





# Forming pliers

## Forming pliers for passive components

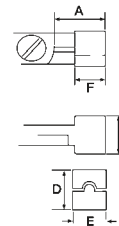
Forming pliers for component connection, U-shape.



4.724 Inch / 120 mm

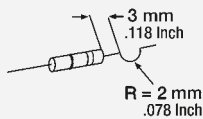
2.47 / 70 g

- 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



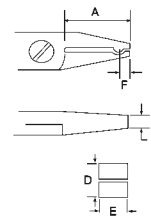
Forming pliers for component connections, U-shape, axial forming.



4.724 Inch / 120 mm

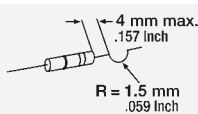
2.47 / 70 g

- 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	0.220	5.6	0.098	2.5	0.177	4.5	0.025	0.65	0.027	0.7	1/2 W





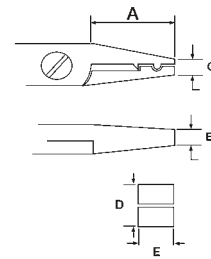
### Forming pliers for cutting and bending components



4.724 Inch / 120 mm

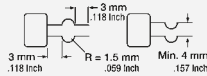
2.47 / 67 g

- 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	0.157	4	0.118	3			0.025	0.65	0.027	0.7	1/2 W



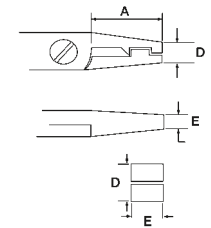
### Forming pliers for cutting and bending



4.724 Inch / 120 mm

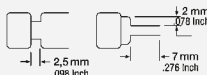
2.36 / 67 g

- 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	0.138	3.5			0.025	0.65	0.027	0.7	1/2 W





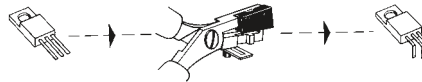
## Forming plier for bending flat components

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



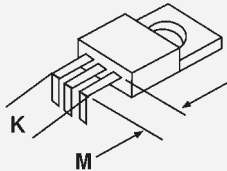
 4.724 Inch / 120 mm

 3.00 / 85 g

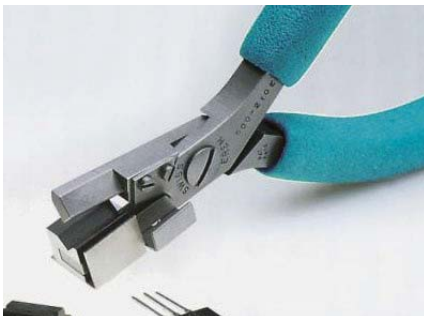


- Safe bending, forming and preparation of component connections, specially for integrated components and power transistors
- Non-reflecting surface
- ESD-safe

Model	K max.		M	
	Inch	mm	Inch	mm
500103A	0.590	15	0.118 - 0.472	3,8 - 15

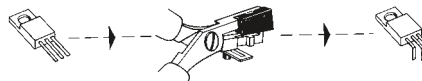


Forming pliers for cutting and bending Series TO components, diodes and mechanical parts to a right angle.



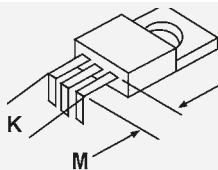
 4.724 Inch / 120 mm

 3.0 / 85 g



- Safe bending, forming and preparation of component connections, specially for integrated components and power transistors
- Non-reflecting surface
- ESD-safe
- Easily adjustable with interchangeable cutting edges.

Model	K max.		M	
	Inch	mm	Inch	mm
500210E	0.433	11	0.149 - 0.590	3,8 - 15





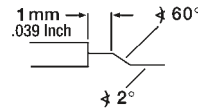
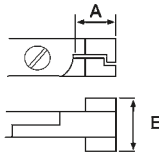
# High precision forming pliers for Flat Packs, Quads

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



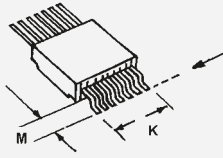
4.724 Inch / 120 mm

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



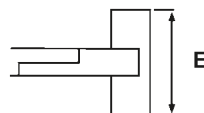
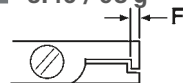
# High precision forming pliers for DIL pins

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



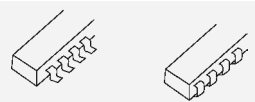
4.724 Inch / 120 mm

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.



## 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



## ESD-safe

All tweezers with soft-grip handles are ESD-safe.



### 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.

### Stainless steel

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

### Titanium

Titanium tweezers are light weight and resistant to high temperatures.

### 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

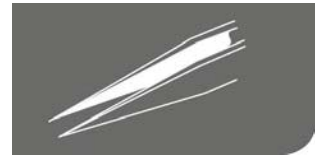




**+** LARGE SELECTION  
of matching SMD tweezers  
and cutting tweezers for  
individual applications



# 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		Material	Description
		oz.	g		
	<b>M5S</b>	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		Material	Description
		oz.	g		
 	<b>ACSA</b>	0.56	16	Special stainless steel	Precision tweezers with serrated finger grips for secure handling. For precise bending and holding of components or wires.
	<b>20AS</b>	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		Material	Description
		oz.	g		
  	<b>3CSA</b>	0.39	11	Special stainless steel	Precision tweezers, standard model for delicate work.
	<b>3CSASL</b>	0.39	11	Special stainless steel	Precision tweezers, standard model for delicate work. Same as 3CSA, but economy model.
	<b>53CSA</b>	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		Material	Description
		oz.	g		
	<b>3SA</b>	0.49	14	Special stainless steel	Precision tweezers with pointed tips for work in microelectronics.
	<b>OODSA</b>	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.
	<b>OOSASL</b>	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.
	<b>OOSA</b>	0.71	20	Special stainless steel	Precision tweezers with pointed tips. Very robust. Suitable for standard applications, e.g. for assembly in electronics.
	<b>1SASL</b>	0.49	14	Special stainless steel	Precision tweezers with pointed tips for standard applications. Same as 1SA, but economy model.
	<b>1SA</b>	0.49	14	Special stainless steel	Precision tweezers with pointed tips for standard applications.
	<b>3SASL</b>	0.49	14	Special stainless steel	Precision tweezers with pointed tips for work in microelectronics. Same as 3SA, but economy model.
	<b>11N</b>	0.59	17	Stainless steel, nickel-plated	Precision tweezers with medium-pointed tips, nickel-plated. Suitable for electronic assembly tasks.

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

Side Cutters and Tip Cutters

Pliers

Tweezers

Special tools

Kits



5.118 Inch / 130 mm	Model	Weight		Material	Description
		oz.	g		
	<b>249SA</b>	0.71	20	Special stainless steel, pointed synthetic tips (PPS)	Precision tweezers with pointed synthetic tips (PPS) and serrated finger grips for secure handling.
	<b>249CER</b>	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		Material	Description
		oz.	g		
	<b>RRS</b>	1.05	30	Stainless steel	Precision tweezers with strong tips for heavy-duty applications.
	<b>SSSA</b>	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		Material	Description
		oz.	g		
	<b>29SA</b>	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		Material	Description
		oz.	g		
	<b>21SA</b>	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		Material	Description
		oz.	g		
	<b>M4AS</b>	0.32	9	Stainless steel	Micro-tweezers, very pointed tips, e.g. for working under a microscope.

 4.331 Inch / 110 mm	Model	Weight		Material	Description
		oz.	g		
	<b>4SA</b>	0.45	13	Special stainless steel	Precision tweezers with very pointed tips.

 4.528 Inch / 115 mm	Model	Weight		Material	Description
		oz.	g		
	<b>5MBS</b>	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.
	<b>5FSA</b>	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.
	<b>5SA</b>	0.42	12	Special stainless steel	Precision tweezers with very pointed tips, suitable for very fine wires.
	<b>5SASL</b>	0.42	12	Special stainless steel	Precision tweezers with very pointed tips, suitable for very fine wires. Same as 5SA, but economy model.
	<b>2SA</b>	0.56	16	Special stainless steel	Precision tweezers with medium-pointed tips.
	<b>2SASL</b>	0.56	16	Special stainless steel	Precision tweezers with medium-pointed tips. Same as 2SA, but economy model.

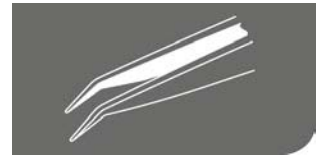
 4.724 Inch / 120 mm	Model	Weight		Material	Description
		oz.	g		
	<b>258SA</b>	0.53	15	Special stainless steel, synthetics tips (PPS)	Precision tweezers with pointed synthetic tips (PPS) and serrated finger grips for secure handling. Volume resistance 16 Ω/cm. Heat-resistant up to 250°C (480°F). Resistant 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		
	<b>3CBS</b>	0.53	15	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		
	<b>5CSA</b>	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.
	<b>5BSA</b>	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.
	<b>51SA</b>	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.
	<b>51SASL</b>	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.
	<b>5ASA</b>	0.42	12	Special stainless steel	Precision tweezers, lightly curved 15°, relieved. Very pointed tips, e.g. for installing small components.
	<b>5ASASL</b>	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		Material	Description
		oz.	g		
	<b>7SA</b>	0.53	15	Special stainless steel	Precision tweezers, curved, relieved, with pointed tips. Excellent handling in confined spaces.
	<b>7SASL</b>	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		Material	Description
		oz.	g		
	<b>65ASA</b>	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		Material	Description
		oz.	g		
	<b>24SA</b>	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.
	<b>30SA</b>	0.92	26	Special stainless steel	Reverse-action tweezers, curved 30°, with robust pointed tips. Fibreglass handles for protection against heat. Reverse clamping action for comfortably holding parts. Particularly suitable for soldering and assembly jobs.

Side Cutters and Tip Cutters

Pliers

Tweezers

Special tools

Kits



# 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		
	<b>2ASA</b>	0.53	15	Special stainless steel	Precision tweezers with flat rounded tips for gripping components. Tip width 2 mm/.078 Inch.
	<b>2ASASL</b>	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.
	<b>2ASASLT</b>	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.
	<b>2ASARU</b>	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.
	<b>52ASA</b>	0.53	15	Special stainless steel	Precision tweezers with pointed, rounded and flexibly movable tips. Prevents damage to sensitive components.



## Precision tweezers with ergonomic handles



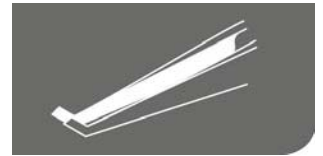
- This series offers models with thin shaped tips to suit every application
- Ergonomically shaped handles reduce hand fatigue and facilitates comfortable working
- Thermally insulated, soft foam handles, ESD-safe
- For all models with the suffix SA in the order number: Special stainless steel, non-magnetic,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


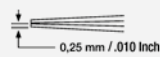

4.724 Inch / 120 mm	Model	Weight		Material	Description
		oz.	g		
	<b>E5SA</b>	0.88	25	Special stainless steel, soft foam handles	Ergonomic precision tweezers with straight, very pointed tips for gripping fine wires.
	<b>E3CSA</b>	0.88	25	Special stainless steel, soft foam handles	Ergonomic precision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

# SMD tweezers

## SMD tweezers – Angled tips

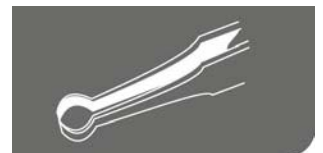
- Suitable for perfect handling of chips and miniature components
- Suitable for assembling SMD printed-circuit boards or ceramic substrates
- Bent shape facilitates optimum access to confined spaces and provides excellent visibility of the area to be worked on
- For all models with the suffix CA in 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		
	<b>102ACA</b>	0.53	15	Special stainless steel	SMD tweezers, angled 45°, with pointed application.
					
	<b>102ACAX</b>	0.49	14	Special stainless steel	SMD tweezers, angled 45°, with pointed application. Model same as 102ACA, but reverse clamping action for easy holding.
					
	<b>103ACA</b>	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		
	<b>39SA</b>	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.
	<b>40SA</b>	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		Material	Description
		oz.	g		
	<b>150SAMF</b>	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.
	<b>150SAD</b>	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.
	<b>150SA</b>	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.

## 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		Material	Description
		oz.	g		
	<b>150SAMB</b>	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.



# 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

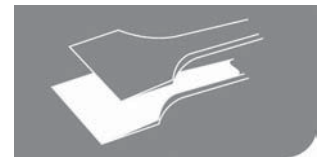
4.724 Inch / 120 mm	Model	Weight		Material	Description
		oz.	g		
	<b>940AS</b>	0.60	17	Special stainless steel	Gripping tweezers with locking mechanism. The ring-shaped tip provides for secure handling up to a tensile force of 5 kg.



# 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



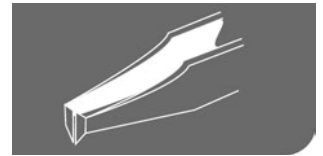
A = Paddle width  
B = Paddle depth


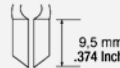
4.921 Inch / 125 mm	Model	Weight		A mm	B mm	Material	Description
		oz.	g				
	<b>91SA</b>	0.53	15	12	7	Special stainless steel	Standard wafer tweezers for 3" and 4" wafers.
5.118 Inch / 130 mm	Model	Weight		A mm	B mm	Material	Description
		oz.	g				
	<b>608ASA</b>	0.81	23	30	8.5	Special stainless steel	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.
	<b>600ASA</b>	0.81	23	19.5	7	Special stainless steel	Wafer tweezers with flat lower paddle and 6 upper fingers for protecting wafers against damage. For 6" wafers.
	Model	Weight		A mm	B mm	Material	Description
		oz.	g				
<b>141SAP WAFER TWEEZERS 150MM</b>		1.06	30			Special-stainless steel	Wafer tweezers 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
- For all models with the suffix S in the order number: Stainless steel, robust tips, non-rusting, non-reflecting surface

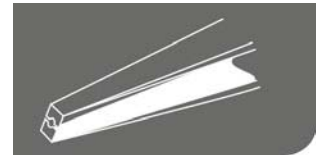


 4.528 Inch / 115 mm	Model	Weight		Material	Description
		oz.	g		
	<b>15AGW</b>	0.92	26	Stainless steel	Cutting tweezers with narrow oblique head. For soft wires up to dia. 0.25 mm/.010 Inch.
		<b>15AGS</b>	0.74	21	Stainless steel
					



# Stripping tweezers

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



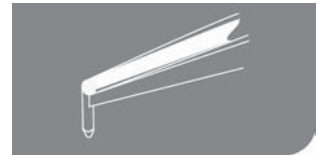
 4.724 Inch / 120 mm	Model	Weight		Material	Description
		oz.	g		
	<b>29Y30</b>	0.78	22	Stainless steel	Miniature stripping tweezers, dia. 0.25 mm/.010 Inch (AWG 30). Stainless steel. Serrated finger grips for secure handling.
	<b>29Y32</b>	0.78	22	Stainless steel	Miniature stripping tweezers, dia. 0.2 mm/.007 Inch (AWG 32). Stainless steel. Serrated finger grips for secure handling.

 4.724 Inch / 120 mm	Model	Weight		Material	Description
		oz.	g		
	<b>29W30</b>	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.
	<b>XB29W301</b>				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 15

Stainless steel

Extraction tweezers for Sub-D connectors. Stainless steel. Outside Ø 12 mm/472 Inch (A) Inside Ø 7 mm/276 Inch (B)





# Special tools

## IC AND SMD TOOLS, FIBER-OPTIC TOOLS, VACUUM MICROMANIPULATOR



### 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, Vectran™-sheathed wires, etc.



### Vacuum micromanipulator

Vacuum system for precise handling of tiny SMD components and silicon wafers, suitable for assembly and laboratory work

Side cutters and tip cutters

Pliers

Tweezers

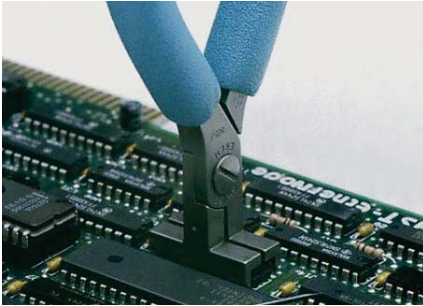
Special tools

Kits

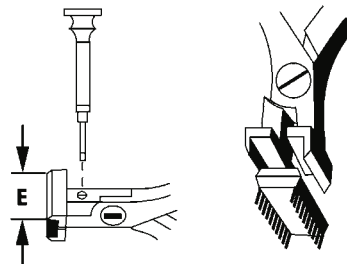


# IC and SMD tools

## Inserting and extracting 14-16 Pins



4.724 Inch / 120 mm



- IC and SMD tools for inserting, extracting, straightening and cutting IC and SMD components
- Non-reflecting surface
- ESD-safe
- One screwdriver included for fine adjustments.

Model				E		Width	
				Inch	mm	Inch	mm
505C	505C	505BGC	505BG	0.787	20	0.3	7.62
	14-16	28	28				
	.300	.300	.600				
505BG				1.417	36	0.591	15



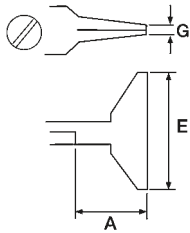


## Pliers for straightening



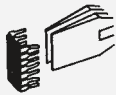
 5.118 Inch / 130 mm

 4.232 / 120 g



- IC and SMD tools for inserting, extracting, straightening and cutting IC and SMD components
- Non-reflecting surface
- ESD-safe
- Practical straightening tool, suitable for straightening contacts, DIL/IC connections.
- 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  $\mu$  pitches below 0.5 mm / .019 inch, you will need the 670EPF

Model	Cut	B		C		D	
		Inch	mm	Inch	mm	Inch	mm
670EP	 Flush	0.354	9	0.354	9	0.236	6



## Tip cutter – angled narrow head



4.528 Inch / 115 mm  
2.399 oz. / 68 g

- 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
- One screwdriver included for fine adjustments.

Model	Cut	B		B		C		D	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm
593AE	 Flush	0.157	4	0.433	11	0.256	6.5	1.024	26

## 3900KC

### Kit for SMD work

Order No. 3900KC

- For SMD assembly and repair applications.
- 6-piece tool kit with monitored discharging ESD handles.
- Special tool steel, non-reflecting surface, resharpenable (cutter).
- High-quality precision tweezers, non-magnetic.
- In an ESD-safe plastic case.

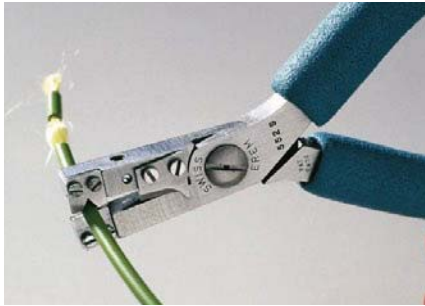


Scope of supply	Model	Description
	102ACA	SMD tweezers, angled 45°, with pointed application.
	103ACA	SMD tweezers, angled 45°, with slightly wider tips for vertical application.
	150SAMB	SMD tweezers, angled 40°, with round tips, dia. 1.2 – 2.5 mm/ .047 – .098 Inch. Serrated finger grips for secure 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



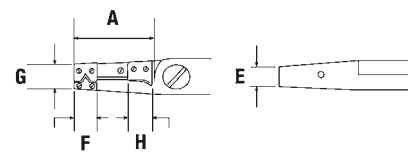
# High-precision tools for optical fibers

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



 4.724 Inch / 120 mm

 2.82 / 80 g

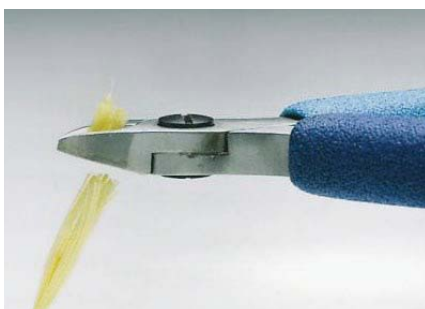


A = Jaw length  
 E = Width of tips  
 F = Depth of interchangeable blade  
 G = Total height of both tips  
 H = Length of cutting blade

- 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.
- 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	0.26	6.5	0.264	6.7	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.
- Side cutter, suitable for cutting Kevlar® silks, Vectran™-sheathed wires, optical fibres and small stainless wires.

Model	Cut	B		C		D			
		Inch	mm	Inch	mm	Inch	mm		
599F0		0.472	12	0.433	11	0.256	6.5	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	B		B		C		D	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm
599TF0	 Semi Flush	0.472	12	0.413	10.5	0.256	6.5	0.748	19



# Vacuum micromanipulator

## Handle for vacuum micromanipulator



 **5.512 Inch / 140 mm**



 **1.235 oz. / 35 g**

- Ergonomic handle with axial switch, serrated finger grip for secure handling. Ergonomic shape reduces hand and wrist fatigue.
- Easy picking up of components or silicone wafers
- Immediate set-down/release of parts
- Full 360° rotating system
- Direct axial switch for vacuum
- ESD-safe
- Professional vacuum system for precise handling of tiny SMD components and silicon wafers
- Suitable for assembly and laboratory work

Model	Diameter	
	Inch	mm
<b>3000ESD</b>	0.394	10

## Insert for 3000ESD housing - Adapters

### Vacuum micromanipulator

Model		Length		Weight		Description
		Inch	mm	oz.	g	
<b>3200</b>		0.984	25	0.529	15	Stainless-steel adapter, rotatable through 360°, straight suction tip for direct working or as an adapter for suction tips or suction cups
<b>3232</b>		0.023	15	0.106	3	Adapter fix, for direct working or as an adapter for suction tips 20442/20412 or suction cup 2052E.

Side cutters and tip cutters

Pliers


Tweezers

Special tools

Kits




**Polyethylene suction tip. For working with 3200 or 3232 adapter.**

Model		Outside Ø		Inside Ø		Description
		Inch	mm	Inch	mm	
<b>2044Z</b>		0.051	1.3	0.035	0.9	Polyethylene suction tip. For working with 3200 or 3232 adapter.

**Stainless-steel suction needle, bent 45°, for working with 3200 or 3232 adapter.**

Model		Outside Ø		Inside Ø		Description
		Inch	mm	Inch	mm	
<b>3303</b>		0.012	0.30	0.005	0.16	Stainless-steel suction needle, bent 45°, for working with 3200 or 3232 adapter.
<b>3310Z</b>		0.039	1.0	0.026	0.65	Stainless-steel suction needle, bent 45°, for working with 3200 or 3232 adapter.

**Silicone suction cup, for working with 3200 or 3232 adapter.**

Model		Diameter		Description
		Inch	mm	
<b>2052E</b>		0.177	4.5	Silicone suction cup, for working with 3200 or 3232 adapter.

## Accessories

Order No.	Description
<b>3008ESD</b>	Tubing system flexible, ESD safe

# Kits

## SWISS HIGH PRECISION TOOLS IN A KIT

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

**+** **LARGE SELECTION**  
of tool kits with high-quality  
precision tools



**+** **ESD-SAFE PLASTIC CASE**  
with padded foam inlay

Side cutters and tip cutters

Pliers

Tweezers

Special tools

Kits

## 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
	<b>2412E</b>	Side cutter – oval head
	<b>2442P</b>	Flat nose pliers with smooth jaws and precision-machined edges.
	<b>2ASASL</b>	Precision tweezers with flat rounded tips for gripping components. Tip width 2 mm/.078 Inch. Same as 2ASA, but economy model.
	<b>622NB</b>	Tip cutter – pointed relieved head
	<b>AASA</b>	Precision tweezers with fine but robust tips for standard applications.
	<b>SCREWDRIVER SET,6PC,PRECISION,ESD SAFE</b>	Precision-Screwdriver Set, 6 parts (4 screwdriver: 1, 5x60mm/.059x2.362 inch, 2, 0x60mm/.078x2.362 inch, 2.5x60mm/.098x2.362 inch, 3, 0x60mm/.118x2.362 inch, 2 Philipps Nro. 0 and No. 00)

## 3900KC

### Kit for SMD work

Order No. 3900KC

- For SMD assembly and repair applications.
- 6-piece tool kit with monitored discharging ESD handles.
- Special tool steel, non-reflecting surface, resharpenable (cutter).
- High-quality precision tweezers, non-magnetic.
- In an ESD-safe plastic case.



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



# 2400KMS

## Erem 2400 MagicSense

Order No. 2400KMS

- For use in electronics, PCB assembly, wire and connection handling.
- 3-piece 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
	<b>2411P</b>	Needle nose pliers with very precise, smooth and rounded jaws.
	<b>2412E</b>	Side cutter – oval head
	<b>2482E</b>	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-piece tweezer kit.
- Special stainless steel, non-magnetic, non-rusting, acid-proof.
- In an ESD-safe plastic case.



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

## 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
	<b>102ACAX</b>	SMD tweezers, angled 45°, with pointed application. Model same as 102ACA, but reverse clamping action for easy holding.
	<b>103ACA</b>	SMD tweezers, angled 45°, with slightly wider tips for vertical application.
	<b>150SAMF</b>	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.
	<b>7SA</b>	Precision tweezers, curved, relieved, with pointed tips. Excellent handling in confined spaces.

## 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
	<b>102ACA</b>	SMD tweezers, angled 45°, with pointed application.
	<b>15AGW</b>	Cutting tweezers with narrow oblique head. For soft wires up to dia. 0.25 mm/.010 Inch.
	<b>2ASA</b>	Precision tweezers with flat rounded tips for gripping components. Tip width 2 mm/.078 Inch.
	<b>3SA</b>	Precision tweezers with pointed tips for work in microelectronics.
	<b>7SA</b>	Precision tweezers, curved, relieved, with pointed tips. Excellent handling in confined spaces.