Erem®

Precision tweezers: Pointed tips straight

110 mm/4.331 Inch

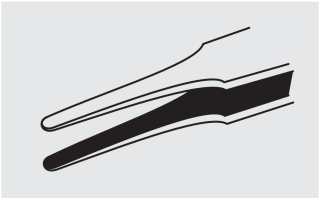
Model		Description
3CS	11 g 0.39 oz.	Precision tweezers with long tips for precision work on printed-circuit boards.
3CSA	11 g 0.39 oz.	Precision tweezers, standard model for delicate work.
3CSASL	11 g 0.39 oz.	Same as 3CSA, but economy model.
3CTA	8 g 0.28 oz.	Model same as 3CSA, but made from titanium: non-magnetic, very heat-resistant and very light.
53CSA	11 g 0.39 oz.	Precision tweezers with anti-crush feature. Prevents damage to sensitive components. Tweezers relieved at front for secure handling.

120 mm/4.724 Inch

Model		Description
3SA	14 g 0.49 oz.	Precision tweezers with pointed tips for work in microelectronics.
3SASL	14 g 0.49 oz.	Same as 3SA, but economy model.
1SA	14 g 0.49 oz.	Precision tweezers with pointed tips for standard applications.
1SASL	14 g 0.49 oz.	Same as 1SA, but economy model.
00SA	20 g 0.71 oz.	Precision tweezers with pointed tips. Very robust. Suitable for standard applications, e.g. for assembly in electronics.

Tweezers

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, non-magnetic, non-rusting, acid-proof, heat-resistant

120 mm/4.724 Inch

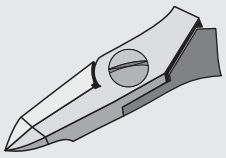
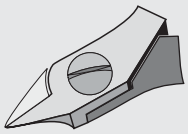
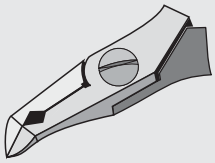
	Model		Description
	2ASA	15 g 0.53 oz.	Precision tweezers with flat rounded tips for gripping small components. Tip width 2 mm/.078 Inch.
	2ASASL	15 g 0.53 oz.	Same as 2ASA, but economy model.
	2ASASLT*	16 g 0.56 oz.	Same as 2ASA, but with Teflon®-coated tips for non-stick holding of self-adhesive parts.
	2ASARU	16 g 0.56 oz.	Same as 2ASA, but with coated tips for non-stick holding of self-adhesive parts.
	25SA	15 g 0.53 oz.	Precision tweezers with flat, round tips slightly wider than the 2ASARU model. Serrated finger grips for secure handling. For standard gripping jobs.
	52ASA	15 g 0.53 oz.	Precision tweezers with pointed, rounded and flexibly movable tips. Prevents damage to sensitive components.

*Not available in North America

Choosing the right tool

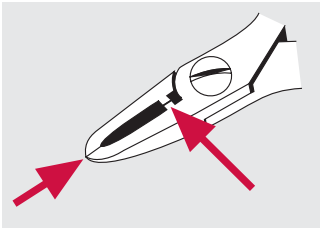
Head shape

Erem offers the right head shape to suit your application. The head shapes differ in terms of shape and design. There are six basic shapes:

Shape	Tip cutter Straight relieved head	Tip cutter Pointed relieved head	Tip cutter Angled narrow head
			
Visibility and accessibility Cutting at the outermost tip of the cutter	This head is suitable for horizontal and vertical cuts. The long tips facilitate cutting in hard-to-reach areas.	This is the narrowest head shape. The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.	The angled head provides for precise cuts at different working angles.
Series 600 Micro	670E*, 670EP*, 670EPF* (P. 45)	622NB, 632NCF, 676E, 776E (P. 44)	
Series 2400 MagicSense	2470E (P. 49)		2475E, 2482E (P. 49)
Series 500 Medium	570E, 573E**(P. 55)	592E, 792E (P. 54)	555E, 572E, 582E (P. 53), 575E, 593AE (P. 54)
Series 800 Maxi		884E (P. 58)	

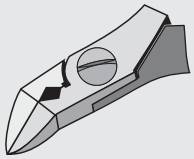
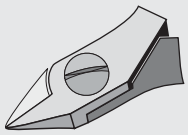
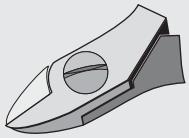
* Very short head

** Straight head for vertical working



Erem cutting-edge protection for tip cutters

Erem tip cutters are equipped with cutting-edge protection.
A special stop system prevents the cutting edges from overlapping.

	Tip cutter Angled wide head	Side cutter Tapered head	Side cutter Oval head
			
	The angled head provides for precise cuts at different working angles.	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.	This is the most widely used head shape, it is robust and size for size offers the highest cutting capacity.
		622NA (P. 44)	**612N, 622N, 632N** (P. 43)
	2403E, 2404E (P. 48)	**2477E** (P. 48)	**2412E, 2422E, 2432E** (P. 47)
	503E, 504AE (P. 52)	**577E, 595E** (P. 52)	**512E, 512N, 522N, 532N, 599E** (P. 51)
		886E (P. 58)	**812N, 822N, 896E** (P. 57)

High cutting capacity
Cutting over the full length of the cutter

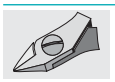
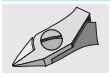
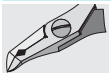
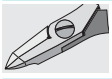
Erem offers carbide cutters (see P. 38) for cutting high-hardness wire (piano wire)

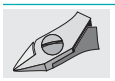
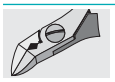
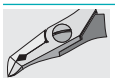
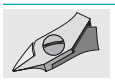
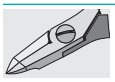
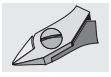
Choosing the right tool

Cutting capacity

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
Series 600 Micro				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 2.0 Inch .0001 .003 .007 .011 .015 .019 .023 .027 .031 .035 .039 .043 .047 .051 .055 .059 .062 .066 .070 .074 .078
	612N		Semi-flush	
	622N		Flush	
	632N		Super full flush	
	622NA		Flush	
	622NB		Flush	
	676E		Flush	
	776E		Super full flush	
	632NCF		Super full flush	**Only** for soft materials: silicone, rubber, etc.
	670E		Flush	
	670EP		Flush	For micro-package contacts
	670EPF		Flush	**Only** for micro pitches under 0.5 mm / .019 Inch
Series 2400 MagicSense				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 2.0 Inch .0001 .003 .007 .011 .015 .019 .023 .027 .031 .035 .039 .043 .047 .051 .055 .059 .062 .066 .070 .074 .078
	2412E		Semi-flush	
	2422E		Flush	
	2432E		Super full flush	
	2477E		Flush	
	2403E	30°	Flush	
	2404E	30°	Flush	
	2482E	45°	Flush	
	2475E	45°	Flush	
	2470E		Flush	

	Model		Cut		Cutting capability
Series 500 Medium					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 2.0 Inch .0001 .003 .007 .011 .015 .019 .023 .027 .031 .035 .039 .043 .047 .051 .055 .059 .062 .066 .070 .074 .078
	512N			Semi-flush	
	512E			Semi-flush	
	522N			Flush	
	599E			Flush	
	532N			Super full flush	
	595E			Flush	
	577E			Flush	
	503E			Flush	
	504AE			Flush	
	555E	35°		Flush	
	572E	40°		Flush	
	582E	45°		Flush	
	582EW			Flush	
	593AE	30°		Flush	
	575E	45°		Flush	
	592E			Flush	
	792E			Super full flush	
	570E			Flush	
	573E			Flush	For vertical cutting
Series 800 Maxi					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 2.0 Inch .0001 .003 .007 .011 .015 .019 .023 .027 .031 .035 .039 .043 .047 .051 .055 .059 .062 .066 .070 .074 .078
	812N			Semi-flush	
	896E			Semi-flush	
	822N			Flush	
	886E			Flush	
	884E			Flush	
Tungsten-carbide cutters					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 2.0 Inch .0001 .003 .007 .011 .015 .019 .023 .027 .031 .035 .039 .043 .047 .051 .055 .059 .062 .066 .070 .074 .078
	622TX			Flush	
	599T			Semi-flush	
	599TF			Flush	
	595T			Semi-flush	
	595TF			Flush	
	2476TX1			Flush	
	576TX1			Flush	
	2476TX			Flush	
	576TX			Flush	
	503ET	30°		Semi-flush	
	503ETF	30°		Semi-flush	

Side Cutters and Tip Cutters

Pneumatic side cutters and tip cutters

- 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

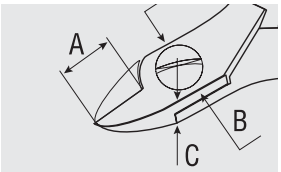
Pneumatic side cutters and tip cutters

130 mm / 5.118 Inch
130 g / 4.59 oz.

- **Pneumatic-cutter housing**

Model	Dimensions in mm/Inch Diameter D	
1500 BSF	28 1.102	Requires 4 – 6 bar oil-free clean compressed air

Cutting heads for 1500BSF



A = length of cutting edges
B = head width
C = head thickness

Side cutter – oval head

35 g / 1.16 oz.

- **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	Dimensions in mm/Inch A	B	C	Max. cutting capability in mm/Inch Diameter Copper wire
1512N	Semi-flush	10 .394	10.5 .413	6.5 .256	1.6 .062
1522N	Flush	10 .394	10.5 .413	6.5 .256	1.6 .062

Wire quality, see P. 38

Pneumatic side cutters and tip cutters

Side cutter – tapered head

35 g / 1.16 oz.

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

Model	Cut	Dimensions in mm/Inch A	B	C	Max. cutting capability in mm/Inch Diameter Copper wire
1522NA	Flush	9 .354	10.5 .413	6.5 .256	1.4 .055

Side cutter – pointed relieved head

32 g / 1.12 oz.

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

Model	Cut	Dimensions in mm/Inch A	B	C	Max. cutting capability in mm/Inch Diameter Copper wire
1522NB	Flush	9 .354	10.5 .413	6.5 .256	1.2 .047

Tip cutter – angled head

38 g / 1.34 oz.
30°

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

Model	Cut	Dimensions in mm/Inch A	B	C	Max. cutting capability in mm/Inch Diameter Copper wire
1503E	Flush	12 .472	10.5 .413	6.5 .256	1.2 .047

Erem®

Erem pliers

Flat nose pliers

120 m / 4.724 Inch
67 g / 2.36 oz.

- Flat nose pliers with smooth jaws and precision-machined edges.
- Suitable for gripping flat workpieces.

Model	Shape	Dimensions in mm/Inch A	B	C	E	G
542E*		23 .905	9 .354	6.5 .256	2.4 .094	1.4 .055

*Order as 542 in North America

125 m / 4.921 Inch
67 g / 2.36 oz.

- Flat nose pliers with replaceable nylon jaws.
- Nylon jaws prevent nicking and scratching.
- Suitable for forming precious metals and component connections.

Model	Shape	Dimensions in mm/Inch A	B	C	E	G
531E*		23 .905	9 .354	6.5 .256	5 .197	3 .118

*Order as 531 in North America

Chain nose pliers

120 m / 4.724 Inch
67 g / 2.36 oz.

- Chain nose pliers with narrow half-round jaws.
- For securely handling components.

Model	Shape	Dimensions in mm/Inch A	B	C	E	G
544E*		23 .905	9 .354	6.5 .256	1 .039	1.4 .055

*Order as 544 in North America

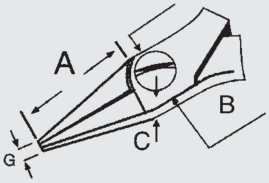
125 mm / 4.921 Inch
67 g / 2.36 oz.

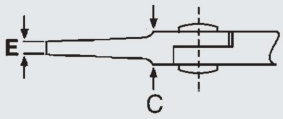
Model	Shape	Dimensions in mm/Inch A	B	C	E	G	
544D		23 .905	9 .354	6.5 .256	1 .039	1.4 .055	Inside-serrated jaws for secure handling

Pliers

Series 2400 MagicSense pliers

- Pliers for miniature and standard electronics
- Optimized ergonomically shaped handles for increased comfort
- Special tool steel, non-reflecting surface, ESD-safe





A = jaw length
B = head width
C = head thickness
E = width of tips
G = total height of both tips

Needle nose pliers

146 mm / 5.748 Inch
72 g / 2.54 oz.

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

Model	Shape	Dimensions in mm/Inch A	B	C	E	G	
2411P		33.5 1.319	11 .433	6 .236	1 .039	1.2 .047	
2411PD		35.5 1.319	11 .433	6 .236	1 .039	1.2 .047	Model same as 2411P, but with inside-serrated jaws for secure handling

Erem®

Series 2400 MagicSense pliers

Flat nose pliers

146 mm / 5.748 Inch
72 g / 2.54 oz.

- Flat nose pliers with smooth jaws and precision-machined edges.
- Suitable for gripping flat workpieces.

Model	Shape	Dimensions in mm/Inch A	B	C	E	G
2442P		33.5 1.319	11 .433	6 .236	3.4 .139	1.2 .047

Round nose pliers

146 mm / 5.748 Inch
72 g / 2.54 oz.

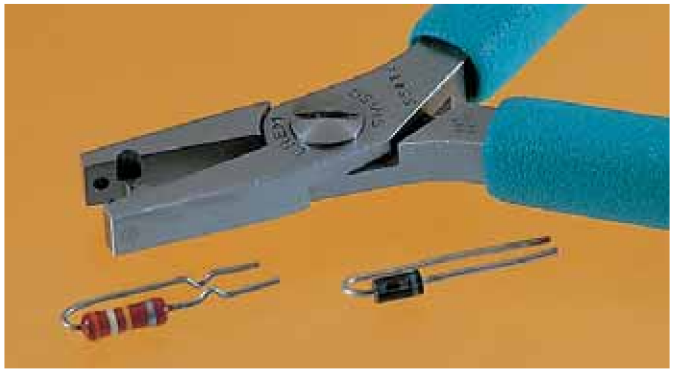
- Round nose pliers with very precise, smooth jaws.
- Suitable for bending wires.

Model	Shape	Dimensions in mm/Inch A	B	C	E ø	G
2443P		33.5 1.319	11 .433	6 .236	0.8 .031	1.6 .062

Forming pliers

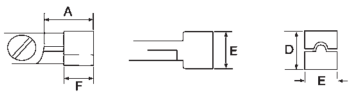
Forming pliers for passive components

- Safe bending, forming and preparation of component connections
- High grade tool steel
- Non-reflecting surface
- ESD-safe

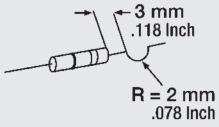


120 mm / 4.724 Inch
70 g / 2.47 oz.

- **Suitable for component connections, U-shape.**



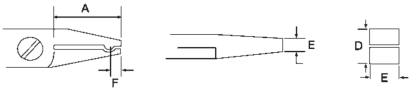
A = jaw length
D = height of tips
E = width of tips
F = length of forming tool

Model		Dimensions in mm/Inch				Max. connection diameter		
		A	D	E	F	Diodes	Capacitors	Resistors
554E*		13 .512	10 .394	10 .394	10 .394	0.65 mm .025 Inch	0.7 mm .027 Inch	1/2 W

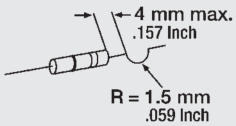
*Order as 554 in North America

120 mm / 4.724 Inch
70 g / 2.47 oz.

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



A = jaw length
D = height of tips
E = width of tips
F = length of forming tool

Model		Dimensions in mm/Inch				Max. connection diameter		
		A	D	E	F	Diodes	Capacitors	Resistors
554A		23 .905	5.6 .220	2.5 .098	4.5 .177	0.65 mm .025 Inch	0.7 mm .027 Inch	1/2 W

IC and SMD tools

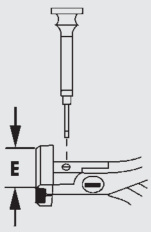
IC and SMD tools

- IC and SMD tools for inserting, extracting, straightening and cutting IC and SMD components
- Non-reflecting surface
- ESD-safe

Inserting and extracting

120 mm/4.724 Inch

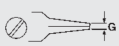
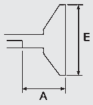
- One screwdriver included for fine adjustments.

Model		Model	Dimensions in mm/Inch			
			E		505C	505BGC	505BG
505C	 	505C	20 .787	pins:	14-16	28	28
		505BGC	36 1.417	Width:	.300	.300	.600
		505BG	36 1.417				

Straightening

130 mm/5.118 Inch
120 g/4.24 oz.

- Practical straightening tool, suitable for straightening contacts, DIL/IC connections.
- Up to 16 connections possible.

Model				Dimensions in mm/Inch		
				A	E	G
808G	 	 		23 .905	42 1.653	1 .039