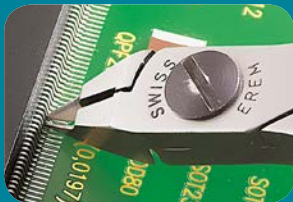


Precision Made in Switzerland

Erem[®]

Cutters and Pliers



Erem Tools Precision Made in Switzerland 4 – 5



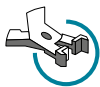
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Tweezers

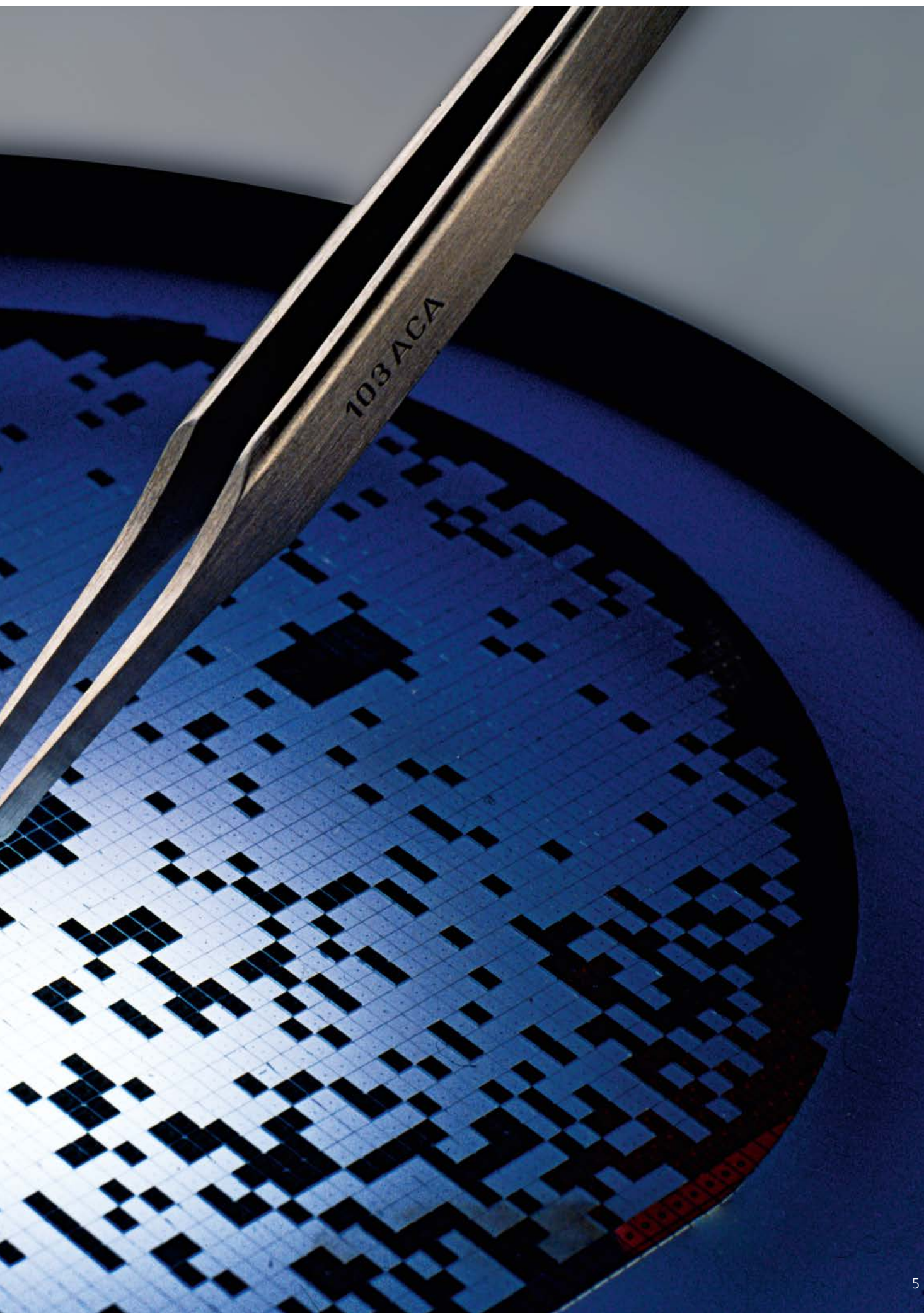
Precision Made in Switzerland

The quality and performance of our Erem precision tools are the product of more than 40 years of development and know-how. Made in Switzerland, Erem tools are the result of constant product development and innovation to meet customer demands and the requirements of modern manufacturing techniques.

Constantly changing market developments encourage Erem to design and manufacture forward looking tools for applications in the fields of electronics, aviation / aero-space, biology, medical accessories, the watch industry and telecommunications.

Erem tools enjoy the deserved high reputation of Swiss precision manufacture and our expertise, combined with ease of use and operator comfort make them an ideal partner in global manufacturing processes.





Tweezers

Erem manufacture a wide range of tweezers.

The combination of expert manufacture, symmetry and balance give Erem tweezers their renowned reputation for precision and the highest quality.

- Pointed tips for precision work
- Ergonomically shaped handles prevent hand fatigue
- Large selection of matching SMD tweezers and cutting tweezers for individual applications





Erem impresses

Erem manufactures a wide range of precision tweezers. The range covers tweezers made from hardened steel, stainless steel, non-magnetic acid resistant stainless steel, titanium, brass, nickel silver and nickel-plated tweezers. Tweezer tips can be serrated or smooth metal, or made from synthetic ESD safe material to prevent damage to fragile surfaces.

In addition to SMD and stripping tweezers, the range includes special gripping tweezers, which enable particularly fine wires or insulated optical fibres to be held and manipulated.

Erem can make to order tweezers for specialised applications. The combination of precision-manufactured, symmetrical tips and perfect balance make Erem tweezers outstanding high-precision tools of the highest quality.

Material

The choice of which tweezers to use will depend as much on the material it is made from as the function it carries out:

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 is not non-rusting.



Stainless steel

Tweezers made from stainless steel have robust tips and are non-rusting. The material is less hard than hardened steel.

Stainless-steel tweezers have the identification letter „S“ in their order numbers.

Erem special stainless steel

This alloy is non-magnetic. The tweezers are non-rusting, acid-proof and heat-resistant up to 300°C (512°F).

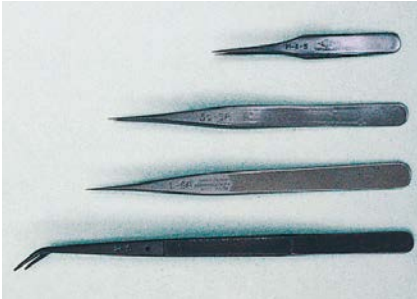
Tweezers made from special stainless steel tweezers have the identification letter „SA“ in their order numbers.

Titanium

Titanium tweezers are light weight and resistant to high temperatures.

Coating

Only Erem offers tweezers with a special Pyroplast coating.



Advantages:

- Heat-resistant up to 500°C (932°F), almost twice as high as Teflon® or Cralon
- No capillary effect on tips, e.g. while soldering (non-stick property)
- No contamination caused by positive or negative charge
- Water-resistant
- Radiation-resistant
- Thickness of coating 60-80 μ

The Pyroplast coating is not available on all Erem tweezers.

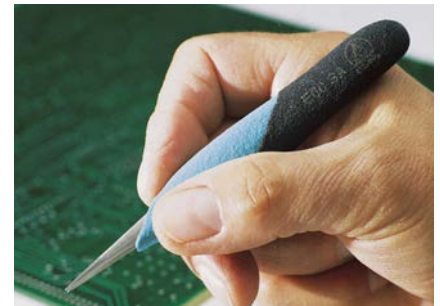
It is made to order and requires a minimum order quantity.

Please contact your nearest sales office for more information.

Ergonomic

Erem has developed a series of tweezers with ergonomic handles to reduce the risk of Repetitive Strain Injuries (RSI) to the hands.

The identification letter in the order number is „E“.



Erem also offers two further innovative tweezers with ergonomically shaped handles:

- E15AGW cutting tweezers with hardened cutting edges for increased service life
- EOODSA precision tweezers with straight strong tips which are inside-serrated for secure handling



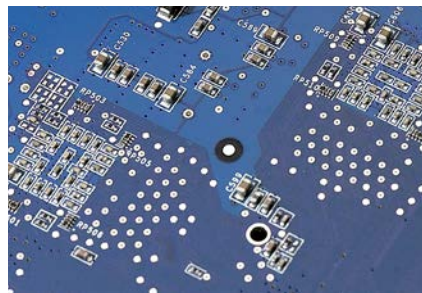
Advantages:

- 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

Special applications

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

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 goldsmith 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 enable confined spaces to be accessed 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.

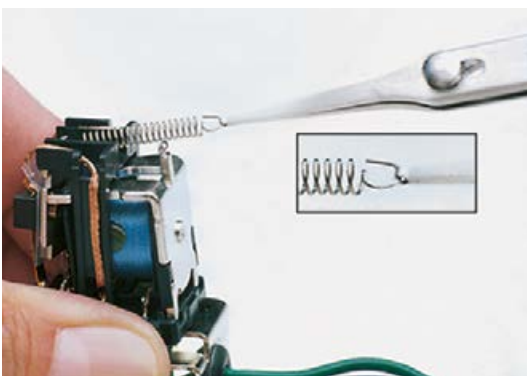
Tweezers for use in the jewelry industry

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 are non stick.

Titanium tweezers type like 3CTA are also ideal for this application. Their lightweight maintains fingertip control over extended working periods and their resistance to high temperatures allows them to be used where gas flames might be encountered.



Tweezers for use in light engineering and dental applications



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

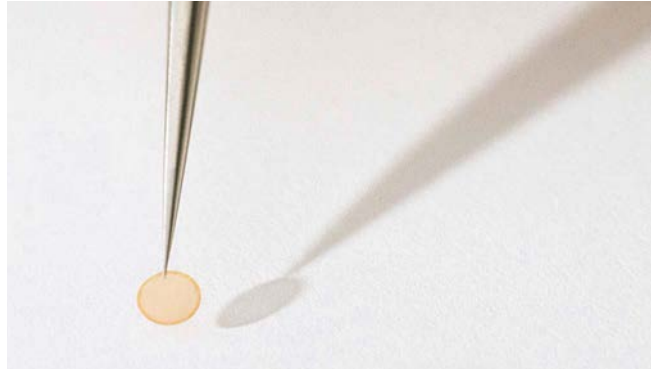
The stainless steel construction allows the tweezers to be sterilised in an autoclave.

Tweezers

Precision tweezers: Pointed tips straight




- For applications in microelectronics, jewelry-making, 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




 **80 mm/3.150 Inch**

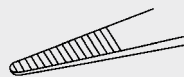


Model		Description
M5S	6 g 0.21 oz.	Micro-tweezers, very pointed tips, e.g. for precision work under a microscope.

 **108 mm/4.252 Inch**




Model		Description
ACSA	16 g 0.56 oz.	Precision tweezers with serrated finger grips for secure handling. For precise bending and holding of components or wires.
20AS	12 g 0.42 oz.	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.



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.
OOSA	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: Pointed tips straight


 120 mm/4.724 Inch



Model		Description
OOSASL*	20 g 0.71 oz.	Same as OOSA, but economy model.
OOCSA	18 g 0.64 oz.	Model same as OOSA, but with shorter tips.
OOBSA	20 g 0.71 oz.	Model same as OOSA, but with serrated finger grips for secure handling.
OODSA	20 g 0.71 oz.	Model same as OOSA, but with serrated finger grips and inside-serrated tips for secure handling.
64SA	17 g 0.60 oz.	Precision tweezers with pointed tips and serrated finger grips for secure handling.
11N	17 g 0.60 oz.	Precision tweezers with medium-pointed tips for use on soft components. Nickel-silver, non-magnetic.
AAZ*	16 g 0.56 oz.	Precision tweezers with medium-pointed tips, nickel-plated. Suitable for electronic assembly tasks.

 125 mm/4.921 Inch




Model		Description
AAS	16 g 0.56 oz.	Precision tweezers with fine but robust tips.
AASA	16 g 0.56 oz.	Precision tweezers with fine but robust tips for standard applications.
AASASL*	16 g 0.56 oz.	Same as AASA, but economy model.

*Not available in North America

Precision tweezers: Pointed tips straight


 125 mm/4.921 Inch



Model		Description
AM	17 g 0.60 oz.	Precision tweezers made from brass. The soft metal protects sensitive components against damage. No sparks.


 130 mm/5.118 Inch



Model		Description
249SA	20 g 0.71 oz.	Precision tweezers with pointed synthetic tips (PPS) and serrated finger grips for secure handling. Volume resistance 16 Ω/cm. Heat-resistant up to 250°C (480°F). Resistant to acids and molten soldering tin. Water-repellent.
249CER*	24 g 0.84 oz.	Same as 249SA, but with ceramic tips. Heat-resistant up to 900°C (1500°F).


 140 mm/5.512 Inch



Model		Description
RRS	30 g 1.05 oz.	Precision tweezers with strong tips for heavy-duty applications.
SSSA	11 g 0.39 oz.	Precision tweezers with long, narrow grips and low tension, responds to minimal pressure. The long grips allow precision work close to heat sources.


 150 mm/5.906 Inch



Model		Description
29SA	26 g 0.92 oz.	Reverse-action tweezers with wide, rounded tips. For holding parts by reverse clamping action. Insulated handles, e.g. for protecting against heat.

 160 mm/6.299 Inch

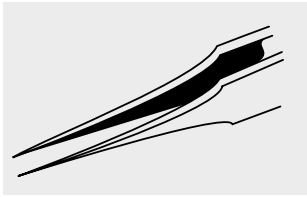


Model		Description
21SA	23 g 0.81 oz.	Precision tweezers with medium-pointed tips and serrated finger grips and inside-serrated tips for secure handling. Very robust. The long grips allow precision work close to heat sources.

*Not available in North America

Tweezers

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




 **90 mm/3.543 Inch**



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

 **110 mm/4.331 Inch**




Model		Description
4SA	13 g 0.46 oz.	Precision tweezers with very pointed tips.
4SASL	13 g 0.46 oz.	Same as 4SA, but economy model.

*Not available in North America

Precision tweezers: Pointed tips straight relieved


 **115 mm/4.528 Inch**



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

 **120 mm/4.724 Inch**

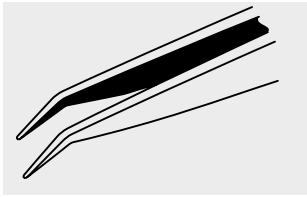


Model		Description
258SA	15 g 0.53 oz.	Precision tweezers with pointed synthetic tips (PPS) and serrated finger grips for secure handling. Volume resistance 16 Ω/cm. Heat-resistant up to 250°C (480°F). Resistant to acids and molten soldering tin. Water-repellent.

*Not available in North America

Tweezers

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, 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




 **110 mm/4.331 Inch**



Model		Description
3CBS	15 g 0.53 oz.	Precision tweezers, curved 40°, with pointed tips, for precision work such as assembly on printed-circuit boards.

 **115 mm/4.528 Inch**




Model		Description
5CSA	12 g 0.42 oz.	Precision tweezers, curved 30°, relieved. Pointed tips. Relieved shape at front of handle provides excellent visibility of the area to be worked on.
5BSA	12 g 0.42 oz.	Precision tweezers, curved 30°, relieved. Pointed tips. Relieved shape at front of handle provides excellent visibility of the area to be worked on.
51SA	12 g 0.42 oz.	Precision tweezers, curved 30°, relieved. Very pointed tips. Relieved shape at front of handle provides excellent visibility of the area to be worked on.

Precision tweezers: Pointed tips bent


115 mm/4.528 Inch



Model		Description
51SASL	12 g 0.42 oz.	Same as 51SA, but economy model.
5ASA	12 g 0.42 oz.	Precision tweezers, lightly curved 15°, relieved. Very pointed tips, e.g. for installing small components.
5ASASL	12 g 0.42 oz.	Same as 5ASA, but economy model.


120 mm/4.724 Inch



Model		Description
7SA	15 g 0.53 oz.	Precision tweezers, curved, relieved, with pointed tips. Excellent handling in confined spaces.
7SASL	15 g 0.53 oz.	Same as 7SA, but economy model.


140 mm/5.512 Inch



Model		Description
65ASA	11 g 0.39 oz.	Precision tweezers, curved 50°. Very pointed tips. For working with extra-small chips and other miniature components.

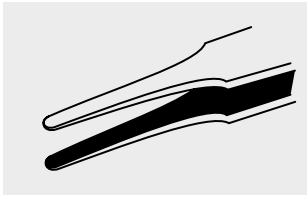
150 mm/5.906 Inch



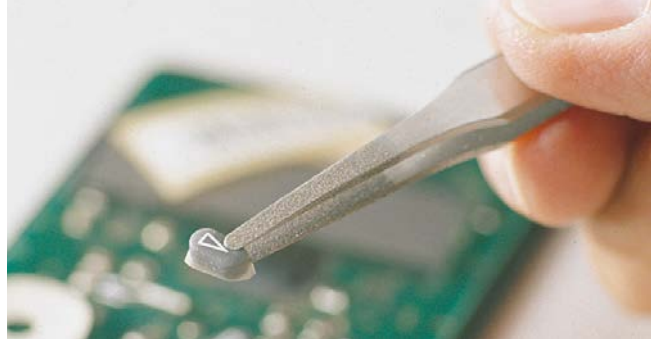
Model		Description
24SA	22 g 0.78 oz.	Precision tweezers, curved 40°, with robust pointed tips. Serrated finger grips and inside-serrated tips for secure handling. Guide pin to avoid overlapping of tips. Ideally suitable for soldering and assembly jobs.
30SA	26 g 0.92 oz.	Reverse-action tweezers, curved 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.

Tweezers

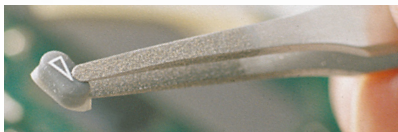
Precision tweezers: Flat round tips straight




- 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



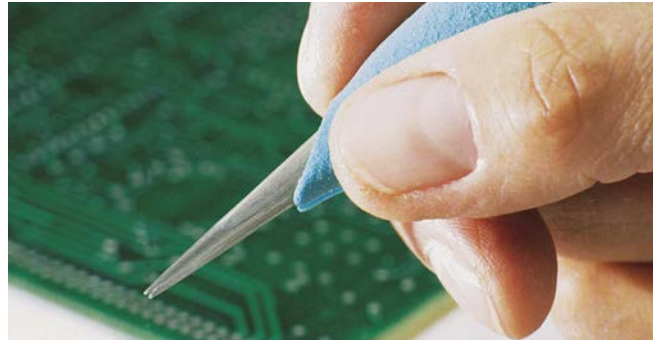
Model		Description
2ASA	15 g 0.53 oz.	Precision tweezers with flat rounded tips for gripping small components. Tip width 2 mm/.078 Inch.
2ASASL	15 g 0.53 oz.	Same as 2ASA, but economy model.
2ASASLT*	16 g 0.56 oz.	Same as 2ASA, but with Teflon®-coated tips for non-stick holding of self-adhesive parts.
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


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



 120 mm/4.724 Inch

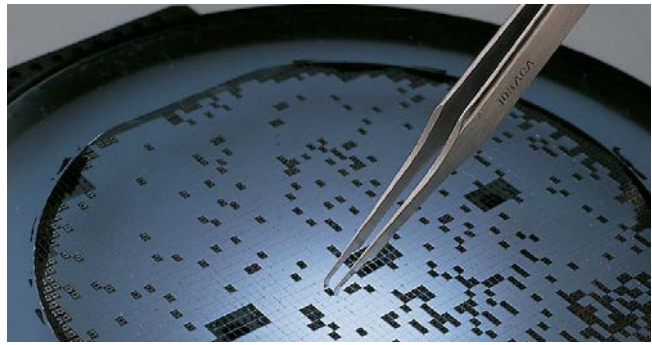


Model		Description
E5SA	25 g 0.88 oz.	Ergonomic precision tweezers with straight, very pointed tips for gripping fine wires.
E3CSA	25 g 0.88 oz.	Ergonomic precision tweezers with long, straight and pointed tips, e.g. for assembly jobs on printed-circuit boards.
EOOSA	30 g 1.05 oz.	Ergonomic precision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

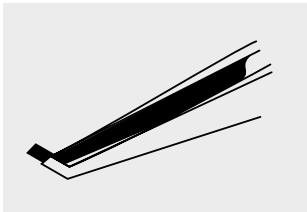
Tweezers

SMD tweezers

- High-quality precision tweezers for SMD jobs with different designs (chip, MELFs, mini MELFs)
- Blunted edges prevent damage to printed-circuit boards




SMD tweezers – Angled tips

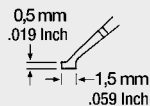


- Suitable for perfect handling of chips and miniature components
- Suitable for assembling SMD printed-circuit boards or ceramic substrates
- Bent shape facilitates optimum access to confined spaces and provides excellent visibility of the area to be worked on
- For all models with the suffix CA in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

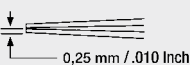
 115 mm/4.528 Inch



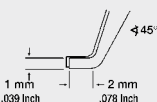
Model		Description
102ACA	15 g 0.53 oz.	SMD tweezers, angled 45°, with pointed tips for vertical application.



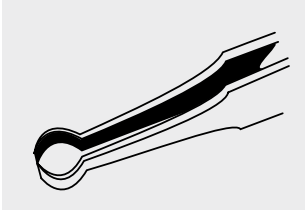
102ACAX	14 g 0.49 oz.	Model same as 102ACA, but reverse clamping action for easy holding.
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103ACA	15 g 0.53 oz.	SMD tweezers, angled 45°, with slightly wider tips for vertical application.
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SMD tweezers – 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


110 mm/4.331 Inch

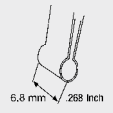
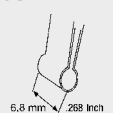
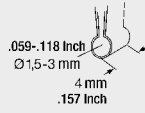


Model		Description
39SA	15 g 0.53 oz.	SMD tweezers with round tips, dia. 0.3 mm/.011 Inch. Serrated finger grips for secure handling. For gripping small wires and cylindrical components.
40SA	15 g 0.53 oz.	SMD tweezers with round tips, dia. 0.4 mm/.015 Inch. Serrated finger grips for secure handling.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

120 mm/4.724 Inch

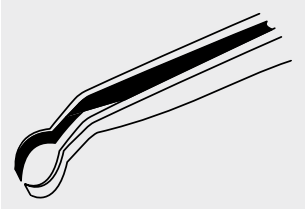


Model		Description
150SAMF	13 g 0.46 oz.	SMD tweezers with round, very narrow tips, dia. 1.2 – 2.5 mm/.047 – .098 Inch. Serrated finger grips for secure handling. For gripping cylindrical components, mini MELFs, etc.
150SAD	13 g 0.46 oz.	SMD tweezers with round tips, dia. 1.5 – 3 mm/.059 – .118 Inch.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



Tweezers

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

 115 mm/4.528 Inch

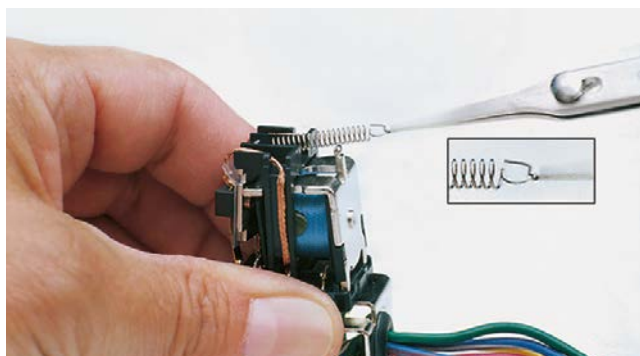


Model		Description
32BSA	17 g 0.60 oz.	SMD tweezers, angled 45°, with round tips, dia. 5 mm/.197 Inch.
32BSA20*	17 g 0.60 oz.	SMD tweezers, angled 45°, with round tips, dia. 2 mm/.078
32BSA25	17 g 0.60 oz.	MD tweezers, angled 45°, with round tips, dia. 2.5 mm/.098 Inch.
150SAMB	13 g 0.46 oz.	MD tweezers, angled 40°, with round tips, dia. 1.2 – 2.5 mm/ .047 – .098 Inch. Serrated finger grips for secure handling.

*Not available in North America


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



 **120 mm/4.724 Inch**

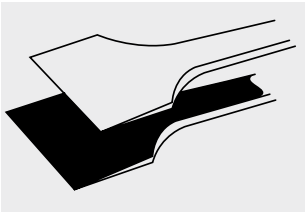


Model		Description
940AS*	17 g 0.60 oz.	Gripping tweezers with locking mechanism. The ring-shaped tip provides for secure handling up to a tensile force of 5 kg.

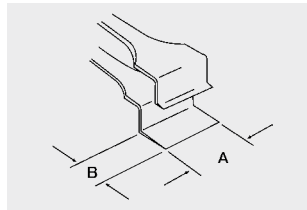
*Not available in North America

Tweezers

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


125 mm/4.921 Inch

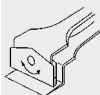


Dimensions in mm/Inch				
Model		A	B	Description
91SA	15 g 0.53 oz.	12 .472	7 .276	Standard wafer tweezers for 3" and 4" wafers.

130 mm/5.118 Inch




Dimensions in mm/Inch				
Model		A	B	Description
600ASA	23 g 0.81 oz.	19,5 .768	8 .315	Wafer tweezers with flat lower paddle and 6 upper fingers for protecting wafers against damage. For 6" wafers.
608ASA	23 g 0.81 oz.	30 1.181	8,5 .276	Model same as 600ASA, but 30 mm/1.181 Inch wide.
600JSA	24 g 0.84 oz.	20 .787	8 .315	Wafer tweezers with free-floating Teflon® upper paddle for secure, damage-free gripping. For 4" – 6" wafers.



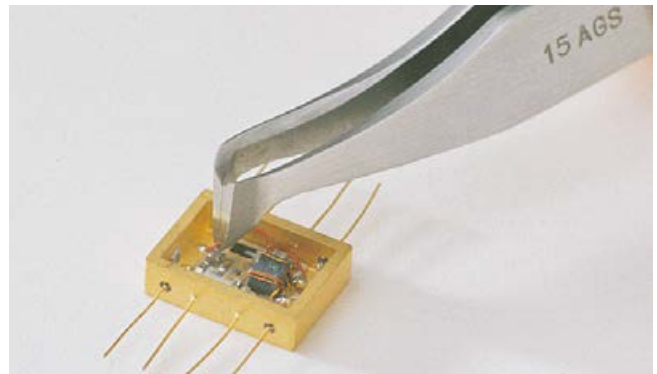
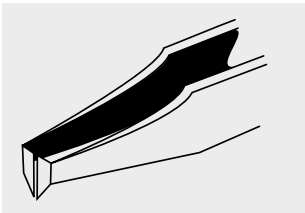
Wafer tweezers

 **150 mm/5.906 Inch**



Model		Dimensions in mm/Inch		Description
		A	B	
141SAP	30 g 1.05 oz.	30 1.181	8 .315	Wafer tweezers with polyester tips for protecting Si, GaAs or Ti wafers against damage. For 4" – 6" wafers.



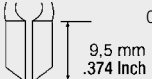
Cutting tweezers



- 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

 **115 mm/4.528 Inch**



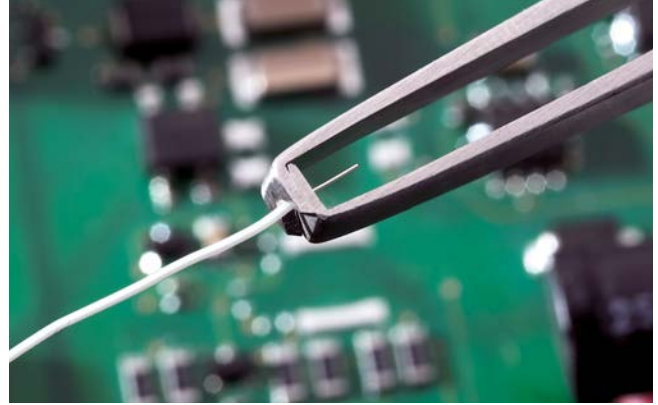
Model		Description
15AGS	21 g 0.74 oz.	Cutting tweezers with narrow oblique head. For soft wires up to dia. 0.25 mm/.010 Inch.
	5.5 mm .216 Inch	
15AGW	26 g 0.92 oz.	SCutting tweezers with narrow oblique head. For soft wires up to dia. 0.25 mm/.010 Inch.
	9.5 mm .374 Inch	

Tweezers

Stripping tweezers




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



 120 mm/4.724 Inch



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

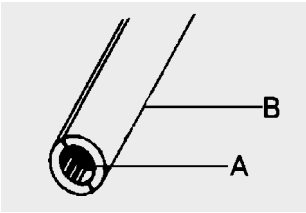
 120 mm/4.724 Inch



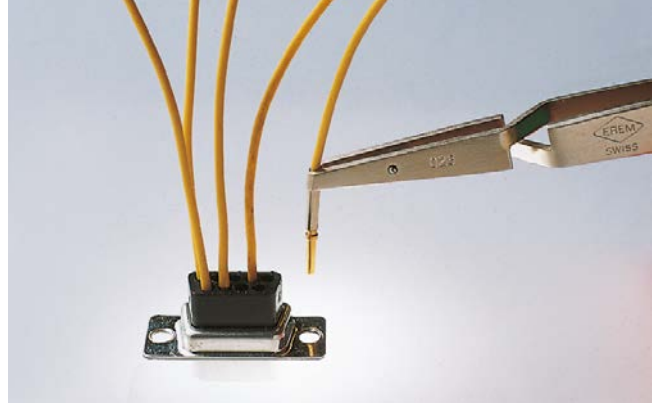
Model		Description
29W30	28 g 0.99 oz.	Stripping tweezers with synthetic fibre handle. For wires of dia. 0.25 – 0.3 mm/.010 – .011 Inch (AWG 30 – 28). For standard and Teflon® insulation.
XB29W301		Spare blade for 29W30

*Not available in North America

Extraction tweezers




A = Outside diameter of pin
B = Inside diameter of pin



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

 **120 mm/4.724 Inch**



Dimensions in mm/Inch				
Model		Ø A	Ø B	Description
024C	15 g 0.53 oz.	12 .472	7 .276	Extraction tweezers for Sub-D connectors. Stainless steel.

Side Cutters and Tip Cutters

Erem offers a wide range of precision side and tip cutters for almost every application

- Special tool steel is hardened with an unique Swiss technology
- This particular hardening process guarantees high durability



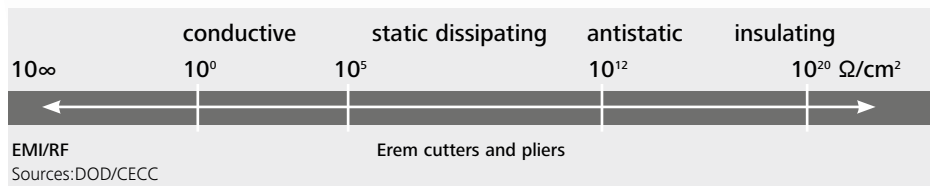


Side Cutters and Tip Cutters



ESD-safe

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



Internal patented Erem Magic Spring

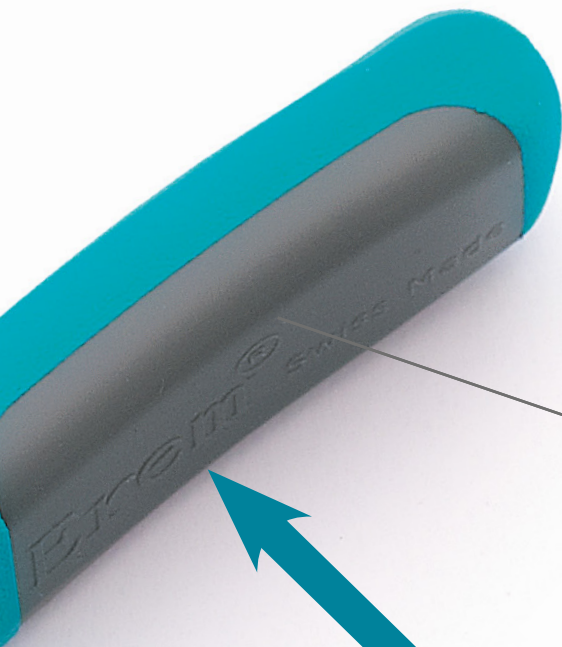
- Reduce costs by long life
- Constant spring force
- Guarantees more than 1 million operations

High precision screw joint

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

Erem Cut: Options for semi flush, full flush or super flush cuts



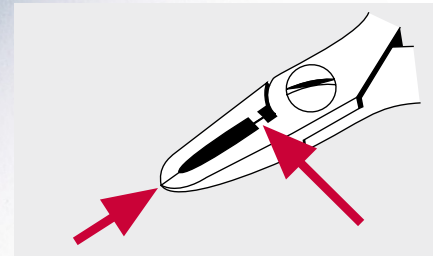
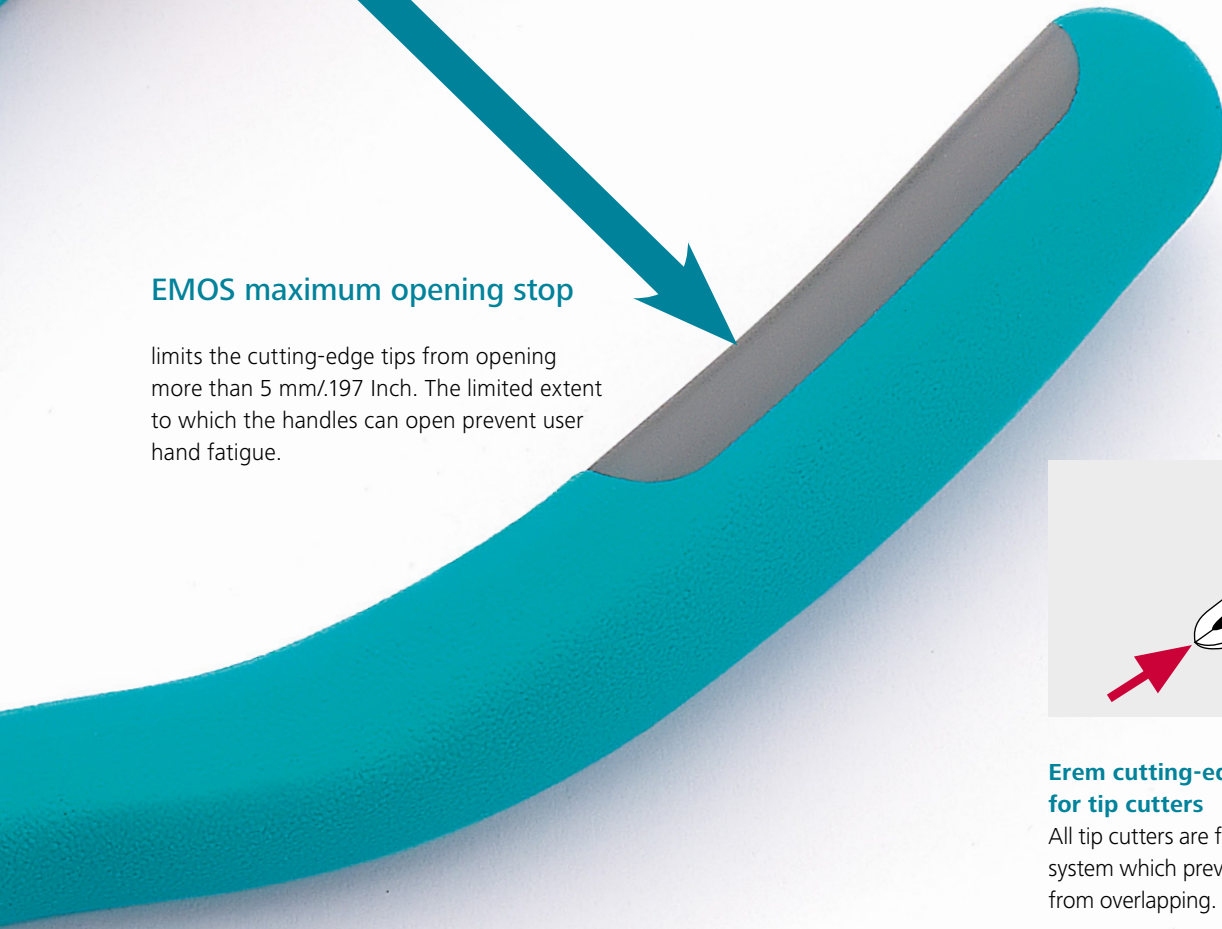


Ergonomically shaped handles

for high comfort,
better grip and added safety

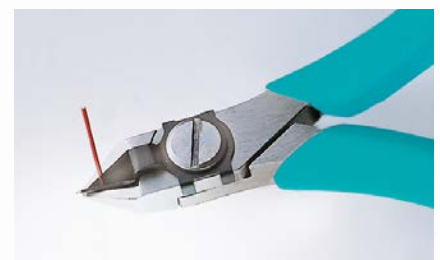
EMOS maximum opening stop

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



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 Series 500, 600 and 2400 cutters (oval head). Order suffix „W“, e.g. 595EW.

Induction-hardened cutting edges in Rockwell hardness 63 – 65 HR

for exceptionally long life

Erem Technology

Special tool steel

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

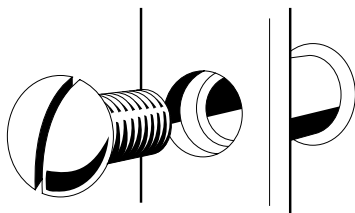
+ The bright tool steel gives additional strength and toughness to the tools pro-moting a long service life.



The 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 guaranteed for 1 million operations.

+ The Magic Spring system is highly reliable, makes the tools easy to use and reduces operator fatigue.



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.

+ Precision cutting and reduced shock to components.

EMOS maximum opening stop

The unique EMOS (**E**rem **M**aximum **O**pening **S**top) system prevents the tips from opening more than 5 mm/.197 Inch. It reduces user fatigue by preventing excessive hand spread.

+ Comfortable and fatigue free working.

Handle

Erem cutters and pliers with ergonomic handles

Work **R**elated **U**pper **L**imb **D**isorder (WRULD) can be caused by positional fatigue or nerve damage brought about by the repeated use of non-ergonomic hand tools, otherwise known as **R**epetitive **S**train **I**njuries (RSI).

WRULDS is a direct consequence of insufficient ergonomics in manufacturing processes and working practices. To reduce the factors which cause WRULDS, Erem has developed a range of tools with ergonomic handles (Series 2400 Magic-Sense).

The handle shape and special materials ensure a soft feel, operating comfort and safety. The specially shaped handles ensure that the gripping pressure is evenly spread over the entire palm of the hand. The thumb and fingers automatically find their best position. The effort that has to be exerted by the user is reduced, thereby reducing hand fatigue.

The anti-slip surface provides excellent grip. The material is highly resistant to perspiration, water, oil and chemicals. The handles are ESD-safe and are easily interchangeable.

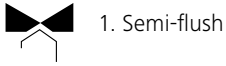




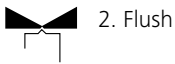
Erem Cut

Cut shape

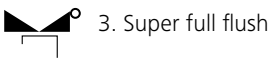
There are three blade options, which determine the shape left on a lead after cutting. (see also P. 35)



1. Semi-flush



2. Flush



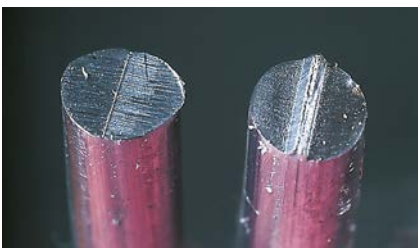
3. Super full flush

Cutting edge

Erem cutters are noted for their ease of use, one of the reasons for this is the ability of the blade to cut equally well over its full length. This promotes operator comfort and reduces fatigue.

Semi-flush cutters offer the best performance and the longest service life. Super full flush cutters leave a flat wire end with minimal effort and prevent components from being subjected to load.

+ High level of user comfort thanks to special cutting edge.



+ **Erem cut Super full flush: perfect flush cut** Standard cut „Super full flush“

Rockwell hardness

The cutting blades of Erem cutters are hardened to Rockwell 63-65 HRC by an induction heating process. Continuous process control ensures that the blades achieve the correct level of hardening and are not embrittled.

+ This level of hardening plus the high-grade tool steel used in the manufacture of the tools and continuous process control promote an exceptionally long service life.

Erem 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.

+ The re-sharpened tool is as good as new, its life is extended and costs are reduced.

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.

+ The warranty and availability of spares guarantee long service life.



ESD-safe

The ergonomic, interchangeable molded handles are ESD-safe and are fitted as standard on all Erem cutters and pliers.

Choosing the right tool

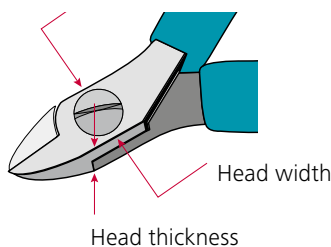
Selection criteria

Erem offers a wide selection of precision side and tip cutters for virtually any application.

When choosing the right cutter, it is important to take

- Size
 - Cut
 - Head shape
 - Cutting capacity
- into consideration.

Size

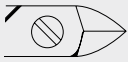

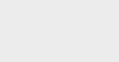







Erem offers the right head size to suit every application. There are three main sizes:

Micro, Medium and Maxi.

Each head size is available in different head shapes.

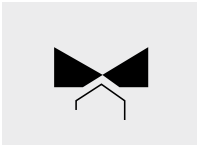
Classification of cutter heads

Micro	Medium		Maxi
			
Series 600	Series 2400 MagicSense	Series 500	Series 800
			
<p>Size</p> <p>Head width 9.0 mm/.354 Inch Head thickness 6.0 mm/.236 Inch</p> <p>Miniature cutter for applications in microelectronics and for fine wires. Offers a large variety of head shapes for very good access even to hard-to-reach areas.</p>	<p>Head width 11.0 mm/.433 Inch Head thickness 6.0 mm/.236 Inch</p> <p>Medium-size cutter. Combines robustness, visibility and accessibility. Large variety of head shapes for precision working in hard-to-reach areas. The Series 2400 MagicSense offers an optimised ergonomic shape and an improved grade of hardness.</p>	<p>Head width 11.0 mm/.433 Inch Head thickness 6.5 mm/.256 Inch</p>	<p>Head width 13.5 mm/.531 Inch Head thickness 7.5 mm/.295 Inch</p> <p>The strongest and most robust head size for general cutting applications in electronics, cuts large wire diameters.</p>



Cut

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



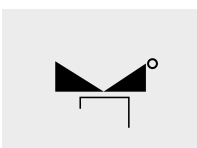
Semi-flush

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.



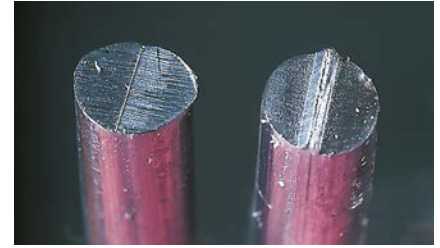
Flush

This cut leaves a much smaller tip at the end of the wire than the semi-flush cut – without reducing the cutting capacity. 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 microelectronics, space travel or medical technology. These cutters are suitable for soft wires.



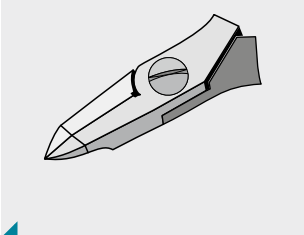
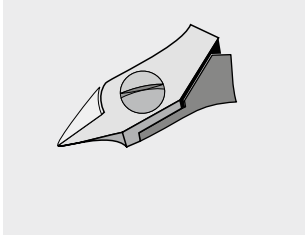
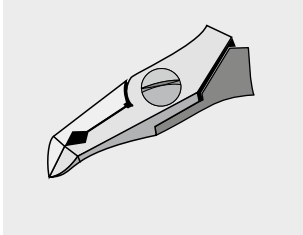
Erem cut Super full flush: perfect flush cut

Standard cut „Super full flush“

Choosing the right tool

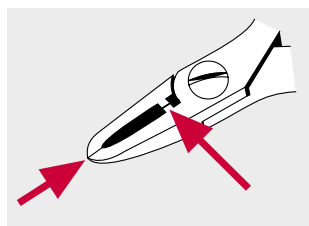
Head shape

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. 265)	622NB, 632NCF, 676E, 776E (P. 264)	
Series 2400 MagicSense	2470E (P. 269)		2475E, 2482E (P. 269)
Series 500 Medium	570E, 573E** (P. 275)	592E, 792E (P. 274)	555E, 572E, 582E (P. 53) 575E, 593AE (P. 273)
Series 800 Maxi		884E (P. 278)	

* Very short head

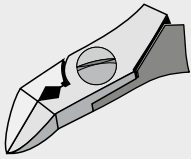
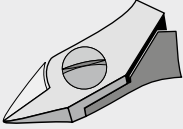
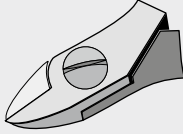
** Straight head for vertical working



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	
			
<p>The angled head provides for precise cuts at different working angles.</p>	<p>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.</p>	<p>This is the most widely used head shape, it is robust and size for size offers the highest cutting capacity.</p>	<p>High cutting capacity Cutting over the full length of the cutter</p>
<p>622NA (P. 264)</p>	<p>612N, 622N, 632N (P. 263)</p>		
<p>2403E, 2404E (P. 48)</p>	<p>2477E (P. 268)</p>	<p>2412E, 2422E, 2432E (P. 267)</p>	
<p>503E, 504E (P. 52)</p>	<p>577E, 595E (P. 272)</p>	<p>512E, 512N, 522N, 532N, 599E (P. 271)</p>	
	<p>886E (P. 278)</p>	<p>812N, 822N, 896E (P. 277)</p>	

Erem offers carbide cutters (see P. 39) for cutting high-hardness wire (piano wire).

Choosing the right tool

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



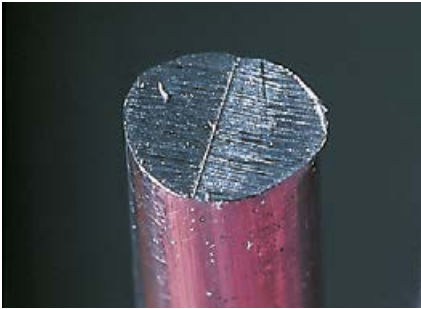
Soft wire, copper, aluminium, tensile strength 250 MPa

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 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	[Bar chart showing capabilities for 612N]	
	622N		Flush	[Bar chart showing capabilities for 622N]	
	632N		Super full flush	[Bar chart showing capabilities for 632N]	
	622NA		Flush	[Bar chart showing capabilities for 622NA]	
	622NB		Flush	[Bar chart showing capabilities for 622NB]	
	676E		Flush	[Bar chart showing capabilities for 676E]	
	776E		Super full flush	[Bar chart showing capabilities for 776E]	
	632NCF		Super full flush	Only for soft materials: silicone, rubber, etc.	
	670E		Flush	[Bar chart showing capabilities for 670E]	
	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	[Bar chart showing capabilities for 2412E]	
	2422E		Flush	[Bar chart showing capabilities for 2422E]	
	2432E		Super full flush	[Bar chart showing capabilities for 2432E]	
	2477E		Flush	[Bar chart showing capabilities for 2477E]	
	2403E	30°	Flush	[Bar chart showing capabilities for 2403E]	
	2404E	30°	Flush	[Bar chart showing capabilities for 2404E]	
	2482E	45°	Flush	[Bar chart showing capabilities for 2482E]	
	2475E	45°	Flush	[Bar chart showing capabilities for 2475E]	
	2470E		Flush	[Bar chart showing capabilities for 2470E]	



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	2,0		
				Inch	.0001	.003	.007	.011	.015	.019	.023	.027	.031	.035	.039	.043	.047	.051	.055	.059	.062	.066	.070	.074	.078		
Series 500 Medium																											
	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																											
	812N		Semi-flush																								
	896E		Semi-flush																								
	822N		Flush																								
	886E		Flush																								
	884E		Flush																								
Tungsten-carbide cutters																											
	622TX		Flush																								
	599T		Semi-flush																								
	599TF		Flush																								
	595T		Semi-flush																								
	595TF		Flush																								
	2476TX1		Flush																								
	576TX1		Flush																								
	2476 TX		Flush																								
	576TX		Flush																								
	503ET	30°	Semi-flush																								
	503ETF	30°	Semi-flush																								

Side cutters for use in medical device manufacturing



The 632NCF miniature side cutter is ideally suitable 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.

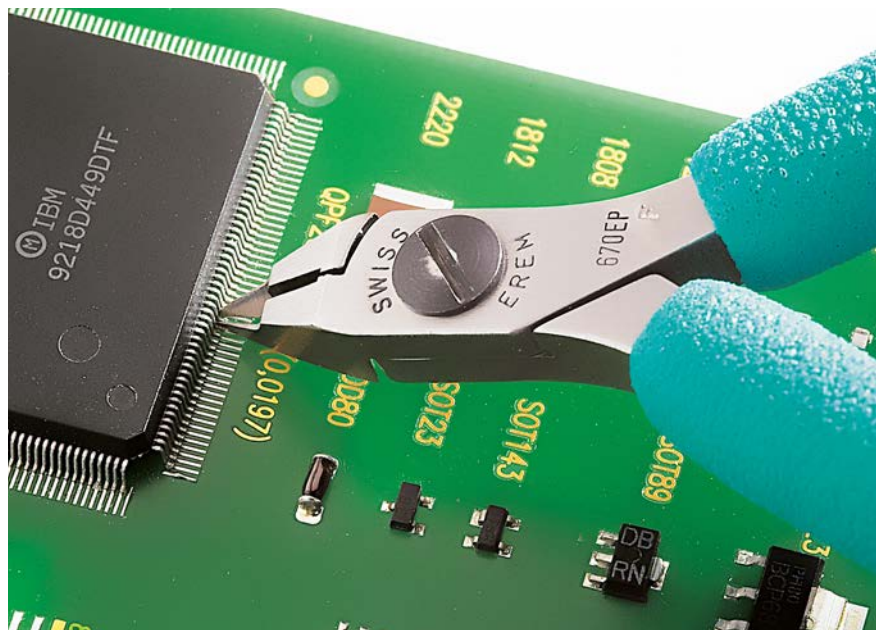
The cutting edges of the 632NCF side cutter are precision-ground to an extremely high level. This enables the cutter to deliver a razor-like full-flush cut.

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 lead 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 cutter for cutting stainless wires



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

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

Side Cutters and Tip Cutters

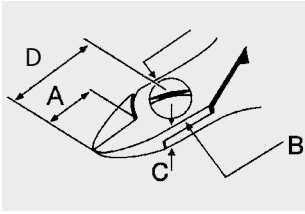
Series 600 Micro

- Miniature cutters
- Offers a wide variety of head shapes for access in difficult to reach areas
- Suitable for SMD and leads (670EP, 670EPF)
- Made from high grade tool steel with cutting edges hardened to 63-65HRC
- Non reflecting surface, ESD safe, resharpenable





Series 600 Micro



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

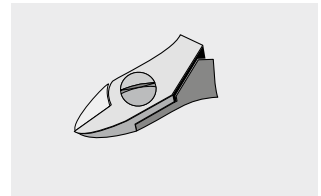
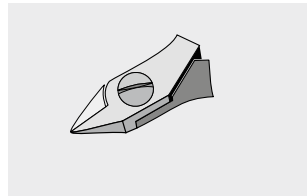
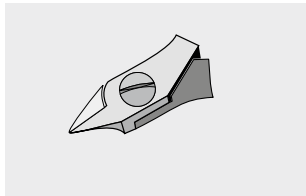
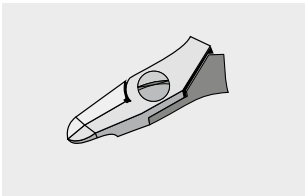


Tip cutter
 Straight short
 relieved head

Tip cutter
 Pointed
 relieved head

Side cutter
 Tapered head

Side cutter
 Oval head



Visibility and accessibility

Robustness, high cutting capacity

Side cutter – oval head



110 mm/4.331 Inch
48 g/1.69 oz.

- 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	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter		
		A	B	C	D	Hard wire	Medium hardness	Copper wire
612N	 Semi-flush	9 .354	9 .354	6 .236	15 .590	0.5 .019	0.8 .031	1.3 .051
622N	 Flush	9 .354	9 .354	6 .236	15 .590	–	0.8 .031	1.3 .051
632N	 Super full flush	9 .354	9 .354	6 .236	15 .590	–	0.7 .027	1.3 .051

Side Cutters and Tip Cutters


Series 600 Micro

Side cutter – tapered head




 **110 mm/4.331 Inch**
 **48 g/1.69 oz**

- 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	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
622NA	 Flush	9	9	6	15	0.7	1.0
		.354	.354	.236	.590	.027	.039

Tip cutter – pointed relieved head

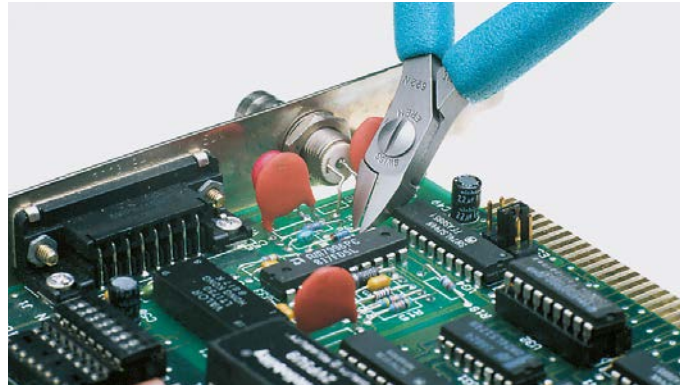


 **110 mm/4.331 Inch**
 **48 g/1.69 oz.**

- 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				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
622NB	 Flush	9	9	6	15	0.6	0.8
		.354	.354	.236	.590	.023	.031
676E	 Flush	9	9	6	15	Model same as 622NB, but with short, robust head	
776E	 Super full flush	9	9	6	15	0.6	0.8
		.354	.354	.236	.590	.023	.031
632NCF	 Super full flush	9	9	6	15	For soft material such as small silicone tubes, miniature rubber seals or for cutting soft synthetic parts	
		.354	.354	.236	.590		

Series 600 Micro






Tip cutter – straight short relieved head



 **110 mm/4.331 Inch**
 **48 g/1.69 oz.**

■ Suitable for cutting SMD and micro-package contacts.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
670E	 Flush	9 .354	9 .354	6 .236	18 .709	0.5 .019	0.8 .031
670EP	 Flush	9 .354	9 .354	6 .236	18 .709	0.4 .015	0.6 .023
670EPF*	 Flush	9 .354	9 .354	6 .236	18 .709	Model same as 670EP, but smaller version only for micro pitches under 0.5 mm/.019 Inch (see also P. 40)	

*Not available in North America

Side Cutters and Tip Cutters

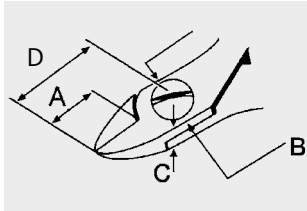
Series 2400 MagicSense

- Medium-size cutter
- Combines robustness, visibility and accessibility.
- Large variety of head shapes for precision working in hard-to-reach areas.
- The optimised ergonomic shape of the Series 2400 MagicSense prevents hand fatigue
- Improved induction-hardened cutting edges up to 64 – 65 HRC for an extremely long service life
- Cutting edges made from special tool steel
- Non-reflecting surface, ESD-safe and resharpenable





Series 2400 MagicSense



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



Tip cutter Straight long relieved head	Tip cutter Angled narrow head	Tip cutter Angled wide head	Side cutter Tapered head	Side cutter Oval head
← Visibility and accessibility			→ Robustness, high cutting capacity	

Side cutter – oval head



130 mm/5.118 Inch
 70 g/2.47 oz.

- 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	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter		
		A	B	C	D	Hard wire	Medium hardness	Copper wire
2412E	 Semi-flush	12 .472	11 .433	6 .236	19 .748	0.5 .019	1.0 .039	1.6 .062
2422E	 Flush	12 .472	11 .433	6 .236	19 .748	–	1.0 .039	1.6 .062
2432E	 Super full flush.	12 .472	11 .433	6 .236	19 .748	–	0.8 .039	1.6 .062

Wire quality, see P. 38


Optional: Safety device for wire scraps. Order suffix „W“, e.g. 2412W.

Side Cutters and Tip Cutters


Series 2400 MagicSense

Side cutter – tapered head






 **127 mm/5.999 Inch**
 **70 g/2.47 oz.**

- 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	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
2477E	 Flush	12	11	6	19	1.0	1.3
		.472	.472	.433	.236	.039	.051

Tip cutter – angled wide head



 **127 mm/5.118 Inch**
 **70 g/2.47 oz.**
 **30°**

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

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
2403E	 Flush	9	11	6	19	1.0	1.6
		.354	.433	.236	.748	.039	.062
						Wide, robust head, fine cut	
2404E	 Flush	9	11	6	20	0.8	1.3
		.354	.433	.236	.787	.031	.051
						Model same as 2403E, but with pointed rounded head	

Series 2400 MagicSense

Tip cutter – angled narrow head



135 mm/5.315 Inch
72 g/2.54 oz.
45°

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

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
2482E	 Flush	6	11	6	26	0.6	1.2
		.236	.433	.236	1.024	.023	.047
Suitable for working on printed-circuit boards, component connections, can be used in both 90° and 180° applications							
2475E	 Flush	4	11	6	22	0.4	0.6
		.157	.433	.236	.866	.015	.023
Suitable for fine cutting work on hybrid circuits of miniature components							

Tip cutter – straight long relieved head



140 mm/5.512 Inch
72 g/2.54 oz.

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

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
2470E	 Flush	4	11	6	29	0.4	0.6
		.157	.433	.236	1.142	.015	.023



Safety device for wire scraps **only** possible on 2412EW, 2422EW, 2432EW, 2477EW, 2482EW models.

Side Cutters and Tip Cutters

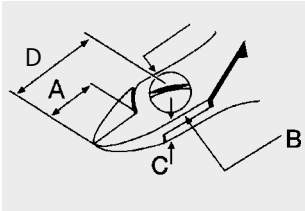
Series 500 Medium

- Medium size, robust, precision cutters
- Wide range of head shapes
- Manufactured from high grade tool steel
- Cutting edges hardened to Rockwell 63-65 HRC
- Non reflecting surface, ESD safe and resharpenable





Series 500 Medium



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



Tip cutter Straight long relieved head	Tip cutter Pointed relieved head	Tip cutter Angled narrow head	Tip cutter Angled wide head	Side cutter Tapered head	Side cutter Oval head
← Visibility and accessibility			Robustness, high cutting capacity →		

Side cutter – oval head



115 mm/4.527 Inch
67 g/2.36 oz.

- 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	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter		
		A	B	C	D	Hard wire	Medium hardness	Copper wire
512N	 Semi-flush	12 .472	11 .433	6.5 .256	19 .748	0.5 .019	1.0 .039	1.6 .062
512E	 Semi-flush	12 .472	11 .433	6.5 .256	19 .748	Model same as 512N, but with burnished head		
522N	 Flush	12 .472	11 .433	6.5 .256	19 .748	–	1.0 .039	1.6 .062
599E	 Flush	10 .472	11 .433	6.5 .256	17 .669	–	1.0 .039	1.6 .062
532N	 Super full flush	12 .472	11 .433	6.5 .256	19 .748	–	0.8 .039	1.6 .062

Wire quality, see P. 38 Optional: Safety device for wire scraps. Order suffix „W“, e.g. 512NW.

Side Cutters and Tip Cutters



Series 500 Medium

Side cutter – tapered head






 **115 mm/4.527 Inch**
 **67 g/2.36 oz.**

- 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	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
595E	 Flush	12	11	6.5	19	1.0	1.3
		.472	.433	.256	.748	.039	.051
						Tapered head	
577E	 Flush	10	11	6.5	17	1.0	1.3
		.472	.433	.256	.669	.039	.051
						Tapered, short head	

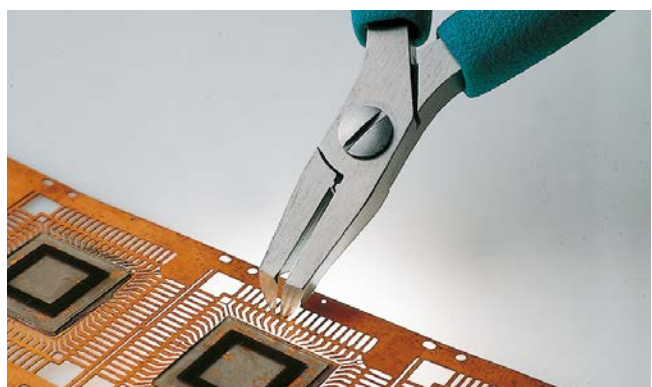
Tip cutter – angled wide head



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

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

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
503E	 Flush	9	11	6.5	19	1.0	1.6
		.354	.433	.256	.748	.039	.062
						Wide, robust head	
504AE	 Flush	9	11	6.5	19	0.8	1.3
		.354	.433	.256	.748	.031	.051
						Model same as 503E, but with pointed rounded head	









Series 500 Medium

Tip cutter – angled narrow head






 **120 mm/4.724 Inch**
 **68 g/2.40 oz.**
 **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	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
555E	 Flush	6	11	6.5	24	0.6	1.3
		.236	.433	.256	.945	.023	.051






 **115 mm/4.527 Inch**
 **68 g/2.40 oz.**
 **40°**


- Relieved cutting edge for easy access.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
572E	 Flush	6	11	6.5	21	0.6	1.3
		.236	.433	.256	.827	.023	.051






 **115 mm/4.527 Inch**
 **68 g/2.40 oz.**
 **40°**


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

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
582E	 Flush	6	11	6.5	26	0.6	1.3
		.236	.433	.256	1.024	.023	.051



 **115 mm/4.527 Inch**
 **67 g/2.36 oz.**
 **45°**

- Model same as 582E, but with safety device for wire scraps.




Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
582EW	 Flush	6	11	6.5	26	0.6	1.3
		.236	.433	.256	1.024	.023	.051

Side Cutters and Tip Cutters


Series 500 Medium

Tip cutter – angled narrow head






 **115 mm/4.527 Inch**
 **68 g/2.40 oz.**
 **30°**


- Ideal rework tool, suitable for cutting DIL contacts at front and rear and densely printed circuit boards.

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
593AE	 Flush	4	11	6.5	26	0.4	1.0
		.157	.433	.256	1.024	.015	.039



 **110 mm/4.331 Inch**
 **67 g/2.36 oz.**
 **45°**

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

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
575E	 Flush	4	11	6.5	22	0.2	0.6
		.157	.433	.256	.866	.007	.023

Tip cutter – pointed relieved head



 **115 mm/4.527 Inch**
 **67 g/2.36 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				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
592E	 Flush	12	11	6.5	19	0.4	0.8
		.472	.433	.256	.748	.015	.031
792E	 Super full flush	12	11	6.5	19	0.4	0.6
		.472	.433	.256	.748	.015	.023

Series 500 Medium




Tip cutter – straight long relieved head



 **120 mm/4.724 Inch**
 **67 g/2.36 oz.**


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

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
570E	 Flush	4	11	6.5	29	0.6	1.2
		.157	.433	.256	1.142	.023	.047
		For cutting at extreme tips					

Tip cutter – straight head for vertical use



 **120 mm/4.724 Inch**
 **67 g/2.36 oz.**

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
573E	 Flush	4	11	6.5	29	0.4	0.6
		.157	.433	.256	1.142	.015	.023

Side Cutters and Tip Cutters

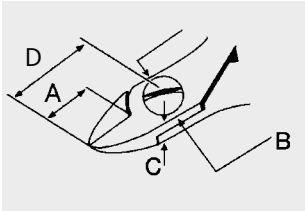
Series 800 Maxi

- Maxi-sized cutter for general cutting applications in electronics
- Made from high grade tool steel, cutting edges hardened to Rockwell 63-65 HRC
- Cuts large wire diameters
- Non-reflecting surface, ESD-safe and resharpenable





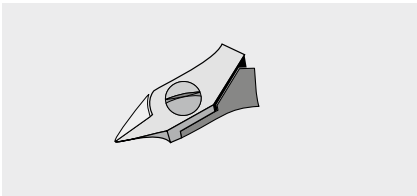
Series 800 Maxi



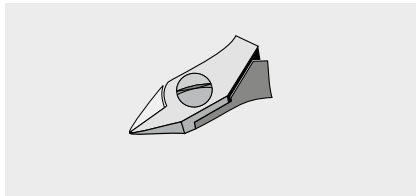
A = length of cutting edges
 B = head width
 C = head thickness
 D = head length



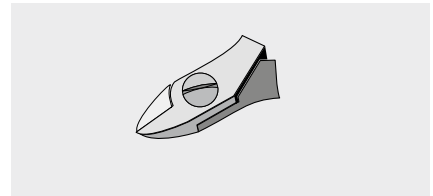
Tip cutter
 Pointed
 relieved head



Side cutter
 Tapered head



Side cutter
 Oval head



← Visibility and accessibility → Robustness, high cutting capacity →

Side cutter – oval head



120 mm/4.724 Inch
 67 g /2.36 oz.

- 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	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter		
		A	B	C	D	Hard wire	Medium hardness	Copper wire
812N	 Semi-flush	15 .590	13.5 .531	7.5 .295	21 .827	0.6 .023	1.2 .047	1.8 .070
896E	 Semi-flush	15 .590	13,5 .531	7,5 .295	21 .827	ø 0,6 .023	ø 1,2 .047	ø 1,8 .070
822N	 Flush	15 .590	13.5 .531	7.5 .295	21 .827	–	1.2 .047	1.8 .070

Side Cutters and Tip Cutters


Series 800 Maxi

Side cutter – tapered head



 **120 mm/4.724 Inch**
 **83 g/2.93 oz.**

- 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	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
886E	 Flush	15	13.5	7.5	21	1.0	1.8
		.590	.531	.295	.827	.039	.070

Tip cutter – pointed relieved head



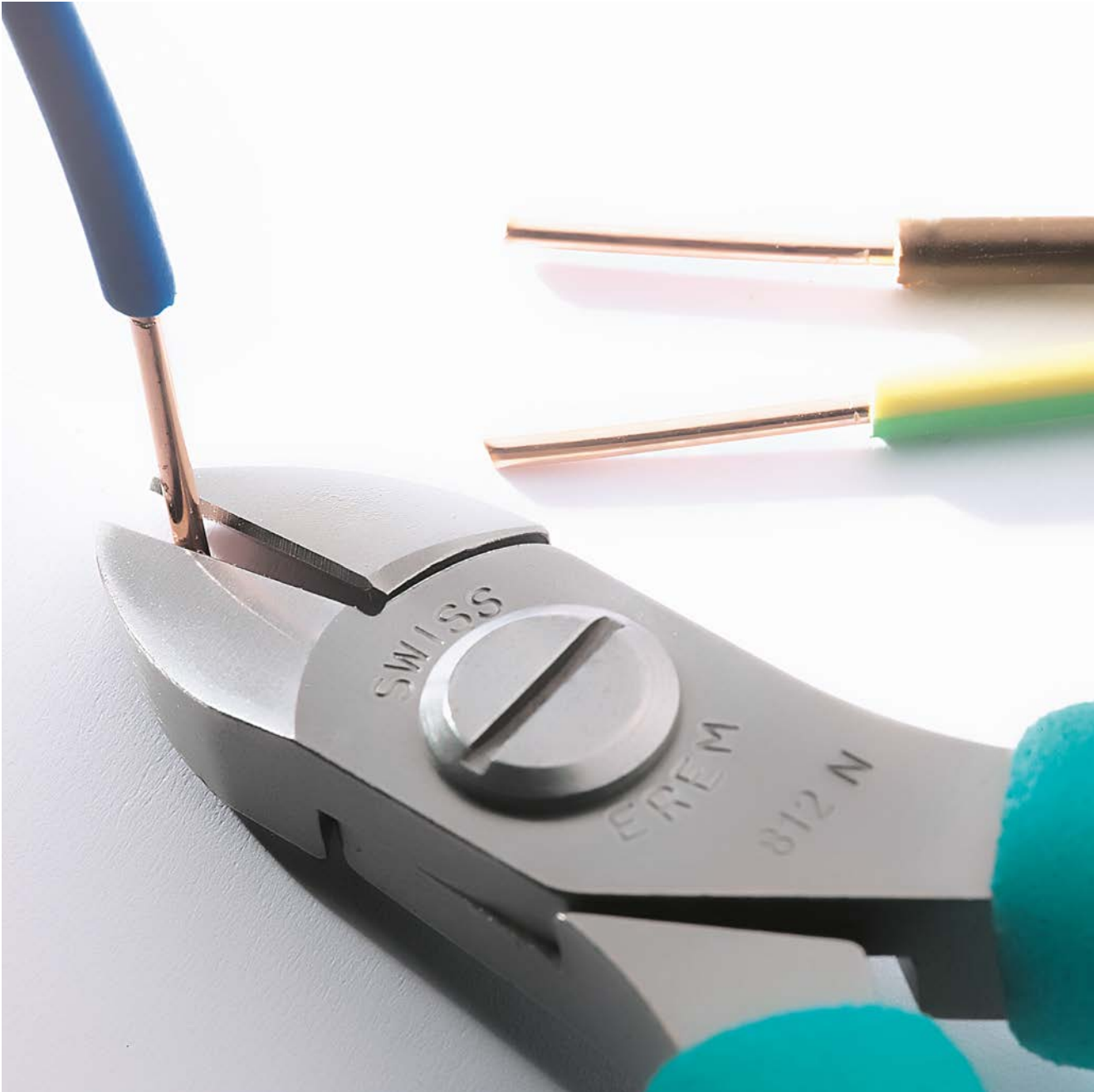
 **120 mm/4.724 Inch**
 **81 g/2.86 oz.**

- 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				Max. cutting capability in mm/Inch Diameter	
		A	B	C	D	Medium hardness	Copper wire
884E	 Flush	15	13.5	7.5	21	0.8	1.6
		.590	.531	.295	.827	.031	.062



Series 800 Maxi



Side Cutters and Tip Cutters

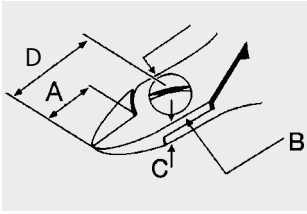
Tungsten-carbide cutters

- Medium sized precision cutters
- Wear resistant tungsten carbide edged cutting blades
- Manufactured from high grade tool steel
- Suitable for cutting hard and tough wires e.g. piano wire, nickel and diode leads
- Non reflecting surface, ESD safe and resharpenable





Tungsten-carbide cutters



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



Tip cutter Pointed relieved head	Tip cutter Angled wide head	Side cutter Tapered head	Side cutter Oval head
← Visibility and accessibility		→ Robustness, high cutting capacity	

Side cutter – oval head



115 mm/4.527 Inch
67 g/2.36 oz.

- 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	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter			
		A	B	C	D	Piano wire	Hard wire	Medium hardness	Copper wire
622TX	 Flush	8	9	6	15	0.2	0.4	0.6	1.2
		.315	.354	.236	.590	.007	.015	.023	.047
Miniature cutter									
599T	 Semi-flush	12	11	6.5	19	0.6	0.8	1.0	1.5
		.472	.433	.256	.748	.023	.031	.039	.059
599TF	 Flush	12	11	6.5	19	0.6	0.8	1.0	1.5
		.472	.433	.256	.748	.023	.031	.039	.059



Side Cutters and Tip Cutters

Tungsten-carbide cutters







Side cutter – tapered head



 **115 mm/4.527 Inch**
 **67 g/2.36 oz.**

- 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	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter			
		A	B	C	D	Piano wire	Hard wire	Medium hardness	Copper wire
595T	 Semi-flush	12	11	6.5	19	0.4	0.6	0.8	1.5
		.472	.433	.256	.748	.015	.023	.031	.059
595TF	 Flush	12	11	6.5	19	0.4	0.6	0.8	1.5
		.472	.433	.256	.748	.015	.023	.031	.059
2476TX1	 Flush	11	11	6	19	0.3	0.4	0.5	1.0
		.433	.433	.236	.748	.011	.015	.019	.039
Series 2400 MagicSense model (Length: 130 mm / 5.118 Inch)									
576TX1	 Flush	11	11	6.5	19	0.3	0.4	0.5	1.0
		.433	.433	.256	.748	.011	.015	.019	.039



Tungsten-carbide cutters

Tip cutter – pointed relieved head






 **115 mm/4.527 Inch**
 **67 g/2.36 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				Max. cutting capability in mm/Inch Diameter			
		A	B	C	D	Piano wire	Hard wire	Medium hardness	Copper wire
2476TX	 Flush	11	11	6	19	0.1	0.2	0.3	1.0
		.433	.433	.236	.748	.003	.007	.011	.039
Series 2400 MagicSense model									
576TX	 Flush	11	11	6.5	19	0.1	0.2	0.3	1.0
		.433	.433	.256	.748	.003	.007	.011	.039

Tip cutter – angled wide head



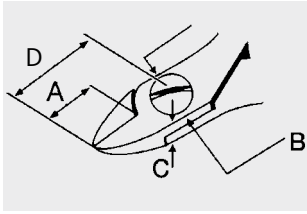
 **110 mm/4.331 Inch**
 **67 g/2.36 oz.**
 **30°**

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

Model	Cut	Dimensions in mm/Inch				Max. cutting capability in mm/Inch Diameter			
		A	B	C	D	Piano wire	Hard wire	Medium hardness	Copper wire
503ET	 Semi-flush	9	11	6.5	19	0.4	0.6	0.8	1.2
		.354	.433	.256	.748	.015	.023	.031	.047
503ETF	 Flush	9	11	6.5	20	0.4	0.6	0.8	1.2
		.354	.433	.256	.787	.015	.023	.031	.047

Side Cutters and Tip Cutters

Special applications



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





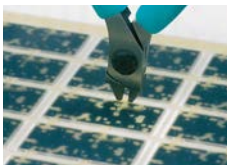
Special applications – Special tool steel, ESD-safe



 **120 mm/4.724 Inch**
 **100 g/3.53 oz.**


■ Side cutter with compound action.

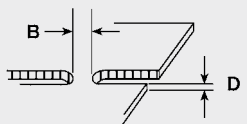
Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter Copper wire	
		A	B	C	Max. D	Max. B
147A	 Semi-flush	12 .472	10.5 .413	7.5 .295	1.8 .070	For cutting hard wires with minimal effort
147AT	 Semi-flush	12 .472	10.5 .413	7.5 .295	1.8 .070	Model same as 147A, but with cutting edges made from tungsten carbide, model on request



 **115 mm/4.527 Inch**
 **79 g/2.79 oz.**

■ Side cutter, suitable for cutting printed-circuit boards.

Model	Cut	Max. cutting capability in mm/Inch	
		Max. D	Max. B
1884EPCM	 Flush	1.5 .059	2.0 .078



A diagram showing a side view of a flush cut on a PCB. Dimension B is the width of the cut, and dimension D is the thickness of the board.

*Not available in North America




Special applications



 **110 mm/4.331 Inch**
 **48 g/1.69 oz.**

- Side cutter, suitable for precision cuts on soft materials, e.g. small silicone tubes in medical applications, precision connector seals, miniature rubber seals, soft synthetic parts.

Model	Cut	Dimensions in mm/Inch		
		A	B	C
632NCF	 Super full flush	9 .354	9 .354	6 .236




 **115 mm/4.527 Inch**
 **67 g/2.36 oz.**


- Side cutter, suitable for cutting Kevlar® silks.

Model	Dimensions in mm/Inch			
	A	B	C	D
599FO	12 .472	11 .433	6.5 .256	19 .748



 **115 mm/4.527 Inch**
 **67 g/2.36 oz.**

- Side cutter with cutting edges made from tungsten carbide.

Model	Cut	Dimensions in mm/Inch				
		A	B	C	D	
599TFO	 Semi-flush	12 .472	10.5 .413	6.5 .256	19 .748	Model same as 599FO, but with cutting edges made from tungsten carbide. Suitable for cutting Kevlar® silks, Vectran™-sheathed wires, optical fibres and small stainless wires

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

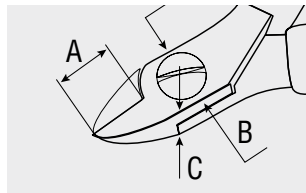


 **130 mm/5.118 Inch**
 **130 g/4.59 oz.**

- Pneumatic-cutter housing

Model	Dimensions in mm/Inch Diameter	
	D	
1500 BSF	28	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			Max. cutting capability in mm/Inch Diameter Copper wire
		A	B	C	
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			Max. cutting capability in mm/Inch Diameter Copper wire
		A	B	C	
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			Max. cutting capability in mm/Inch Diameter Copper wire
		A	B	C	
1522NB	 Flush	9 .354	10.5 .413	6.5 .256	1.2 .047

Tip cutter – angled head



 **38 g/1.34 oz.**
 **30°**

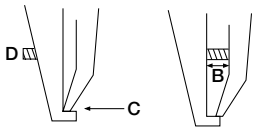
- The angled head provides for precise cuts at different working angles.

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

Side Cutters and Tip Cutters

Distance cutters

- Erem distance cutters are available with fixed and variable cutting lengths
- The tips are polished so as to prevent board damage
- For cutting wires to the right length and for fixing components

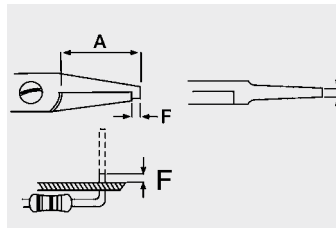


The protective stop screw D improves the performance of Erem distance cutters:

- Clearance B larger than the wire diameter = cut wire is ejected.
- Clearance B smaller than the wire diameter = cut wire is held.

Adjust protective stop screw D so that cutting edge C does not hit the opposite side.

This increases the lifetime of the cutting edge.



A = jaw length
E = width of tips
F = cutting length

Fixed cutting length (F)



 **120 mm/4.724 Inch**
 **67 g/2.36 oz.**

- Special tool steel
- ESD-safe
- Fixed cutting length (= F)
- Reduces mechanical shock on components

Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter	
		A	E	F	Copper wire	
530E06**	 Flush	20 .787	3 .118	0.6 .023	1.2 .047	Cuts copper wire to a length of 0.6 mm/.023 Inch
530E08	 Flush	20 .787	3 .118	0.8 .031	1.2 .047	Cuts copper wire to a length of 0.8 mm/.031 Inch
530E10	 Flush	20 .787	3 .118	1.0 .039	1.2 .047	Cuts copper wire to a length of 1.0 mm/.039 Inch
530E12*	 Flush	20 .787	3 .118	1.2 .047	1.2 .047	Cuts copper wire to a length of 1.2 mm/.047 Inch
530E13*	 Flush	20 .787	3 .118	1.3 .051	1.2 .047	Cuts copper wire to a length of 1.3 mm/.051 Inch
530E15	 Flush	20 .787	3 .118	1.5 .059	1.2 .047	Cuts copper wire to a length of 1.5 mm/.059 Inch



Wire quality, see P. 38

*Not available in North America




**Order as 539E060 in North America






Distance cutters

Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter	
		A	E	F	Copper wire	
530E18*	 Flush	20 .787	3 .118	1.8 .070	1.2 .047	Cuts copper wire to a length of 1.8 mm/.070 Inc
530E20*	 Flush	20 .787	3 .118	2.0 .078	1.2 .047	Cuts copper wire to a length of 2.0 mm/.078 Inch



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

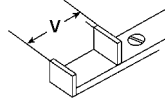
- Special tool steel
- ESD-safe
- Fixed length distance cutter
- Tapered 45°

Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter	
		A	E	F	Copper wire	
549E	 Flush	20 .787	3 .118	1.5 .059	1.2 .047	Cuts wire to a length of 1.5 mm/.059 Inch
549E10*	 Flush	20 .787	3 .118	1.0 .039	1.2 .047	Cuts wire to a length of 1.0 mm/.039 Inch
549E12*	 Flush	20 .787	3 .118	1.2 .047	1.2 .047	Cuts wire to a length of 1.2 mm/.047 Inch


Variable cutting length (V)



 **120 mm/4.724 Inch**
 **70 g/2.47 oz.**

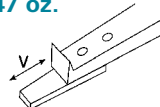


- Special tool steel
- ESD-safe
- Variable cutting length (= V)
- With protective stop screw


Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter	
		A	E	V	Copper wire	
530E15A*	 Flush	20 .787	4.5 .177	1.2 – 6 .047 – .236	1.2 .047	Variable cutting length from 1.2 mm to 6 mm/ .047 to .236 Inch



 **115 mm/4.527 Inch**
 **70 g/2.47 oz.**



- 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	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter	
		A	E	V	Copper wire	
573EB	 Flush	20 .787	4.5 .177	0 – 5 0 – .197	0.8 .031	Variable cutting length from 0 mm to 5 mm/ 0 to .197 Inch

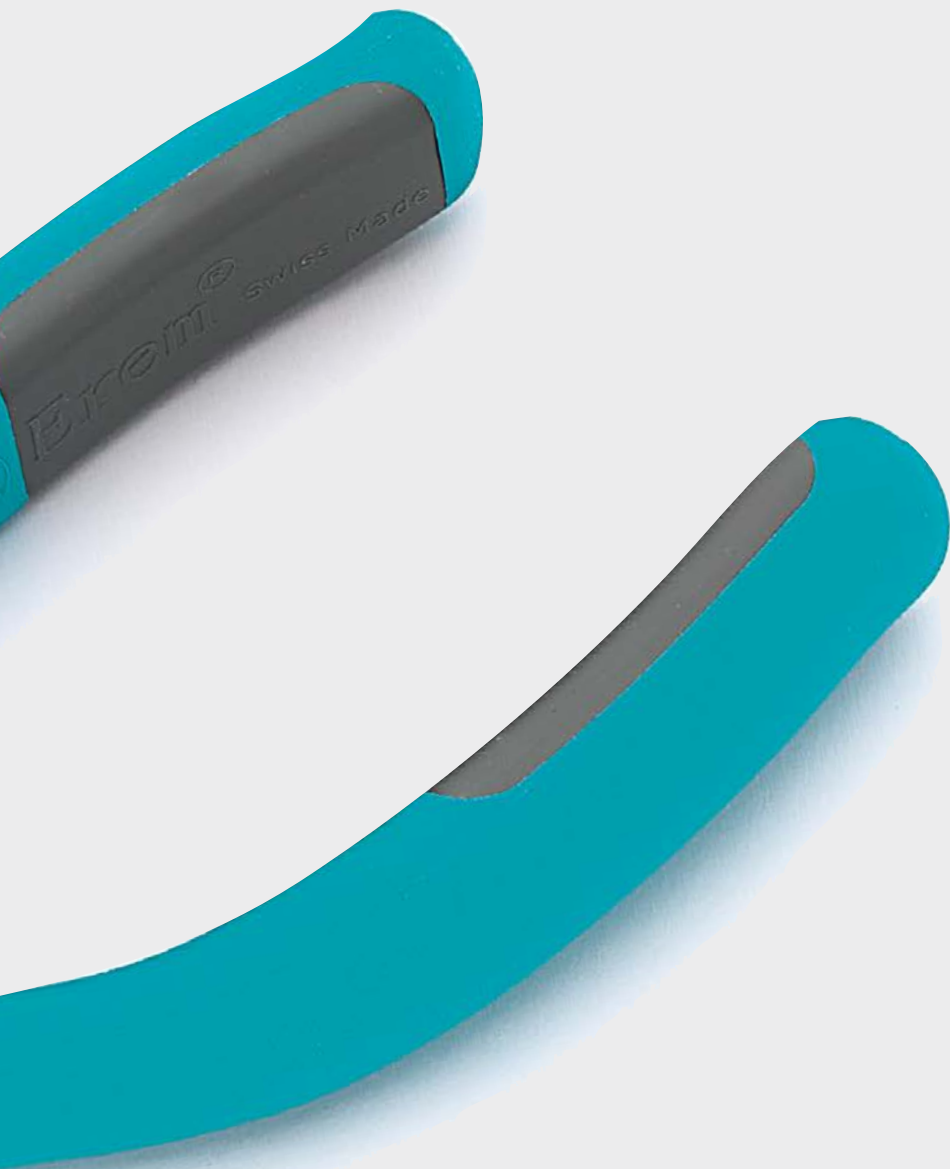
*Not available in North America

Pliers

Good grip due to precise produced tips even at the thinnest part

- The choice of materials used for production of the pliers and a special hardening process is very important.







Erem pliers, stripping pliers, forming pliers

- Gripping and bending pliers with standard and ergonomic handles
- MagicSense – moulded handle for increase comfort
- Wide variety of head shapes
- Special tool steel, non-reflecting surface, ESD-safe

Internal patented Erem Magic Spring

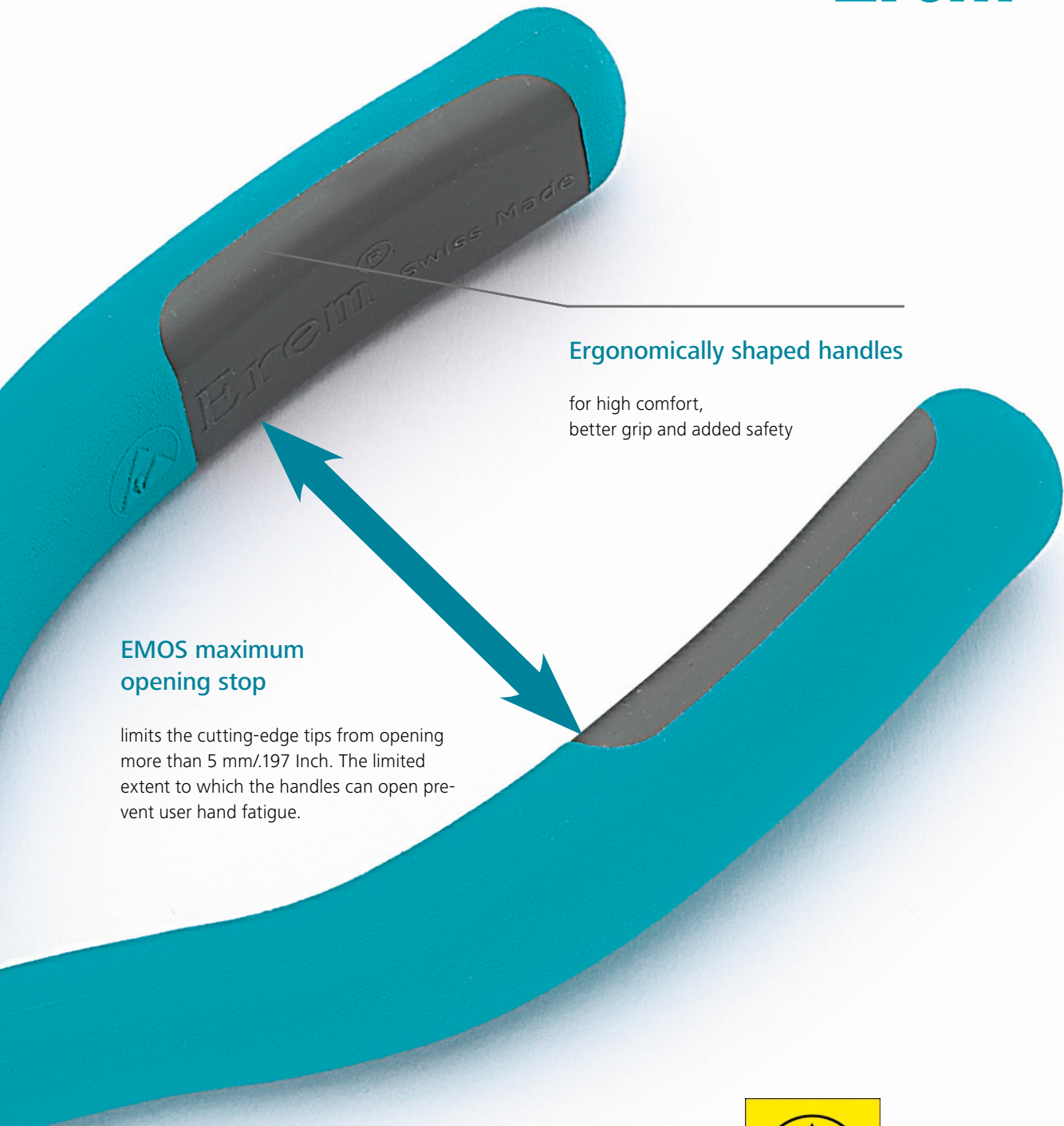
- lange Lebensdauer
- Constant spring force
- Guarantees more than 1 million operations

High precision screw joint

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

Precision ground jaws





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 prevent user hand fatigue.



ESD-safe

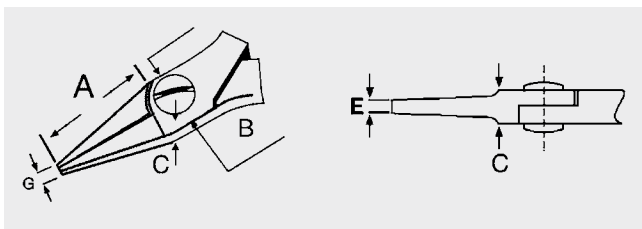
The interchangeable foam-cushion handles are ESD-safe and are fitted as standard on all Erem cutters and pliers.

	conductive	static dissipating	antistatic	insulating
10^∞	10^0	10^5	10^{12}	10^{20} W/cm ²
←—————→				
EMI/RF				
Sources: DOD/CECC				
Erem cutters and pliers				

Pliers

Erem Pliers

- Pliers for miniature and standard electronics
- Special tool steel, non-reflecting surface, ESD-safe
- High grade tool steel




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

Round nose pliers



 **120 mm/4.724 Inch**
 **62 g/2.18 oz.**

- Round nose pliers with very precise, smooth jaws.
- Suitable for forming, bending, laying and feeding in wires.

Model	Shape	Dimensions in mm/Inch				
		A	B	C	E \varnothing	G
543E*		23	9	6.5	0.8	1.6
		.905	.354	.256	.031	.062


*Order as 543 in North America

Needle nose pliers



 **120 mm/4.724 Inch**
 **62 g/2.18 oz.**

- Needle nose pliers with very precise, smooth and rounded jaws.
- Suitable for forming, bending, laying and feeding in wires.

Model	Shape	Dimensions in mm/Inch				
		A	B	C	E	G
547		23	9	6.5	0.9	1.2
		.905	.354	.256	.035	.047


Erem pliers

Flat nose pliers




 **120 mm/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	9	6.5	2.4	1.4
		.905	.354	.256	.094	.055

*Order as 542 in North America



 **125 mm/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	9	6.5	5	3
		.905	.354	.256	.197	.118


*Order as 531 in North America

Chain nose pliers



 **120 mm/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	9	6.5	1	1.4
		.905	.354	.256	.039	.055

*Order as 544 in North America

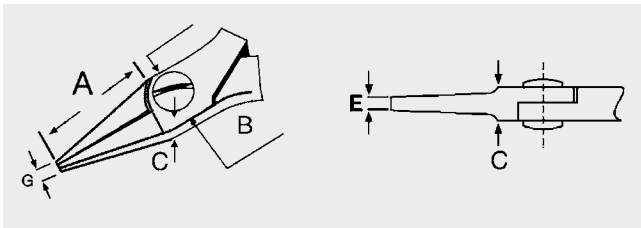


 **120 mm/4.724 Inch**
 **67 g/2.36 oz.**

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

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


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	11	6	3.4	1.2
		1.319	.433	.236	.139	.047

Round nose pliers



 **146 mm/5.748 Inch**
 **72 g/2.54 oz.**

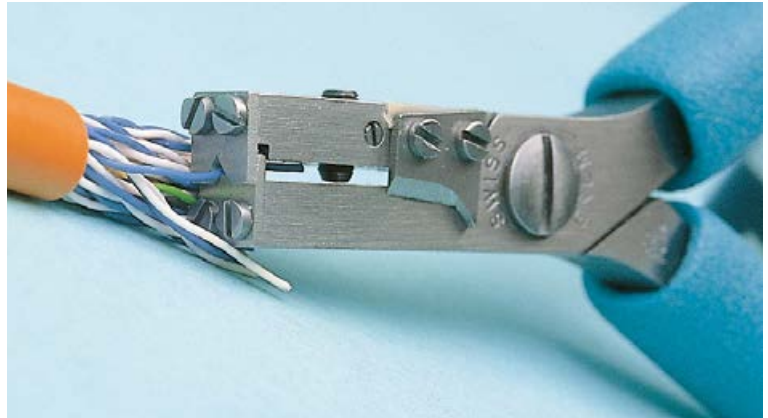
- Round nose pliers with very precise, smooth jaws.
- Suitable for bending wires.

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

Stripping pliers

High precision stripping pliers

- 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
- Special designs also available on request

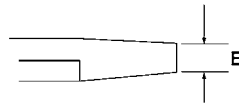
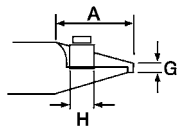


Front stripping



 **120 mm/4.724 Inch**
 **75 g/2.65 oz.**

- Suitable for all types of insulation and optical fibres.
- Integral side cutting blade.



A = jaw length
 E = width of tips
 G = total height of both tips
 H = length of cutting blade

Model	Dimensions in mm/Inch				Wire diameter
	A	E	G	H	
510AE	21 .827	5 .197	4 .157	7 .276	0.25 mm – 1.02 mm (AWG 30 – 18) .010 Inch – .040 Inch

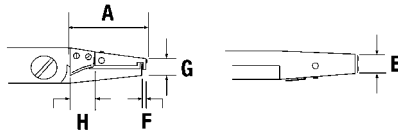
High precision stripping pliers

Front stripping



120 mm /4.724 Inch
80 g/2.82 oz

- Unique precision for damage-free stripping of fine wires.
- Suitable for all types of insulation, Teflon®, Tefzel and optical fibres.



A = jaw length
 E = width of tips
 F = depth of interchangeable blade
 G = total height of both tips
 H = length of cutting blade

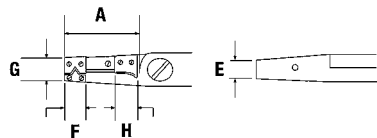
Model	Dimensions in mm/Inch					Wire diameter
	A	E	F	G	H	
552E	23 .905	6.5 .256	1 .039	11 .433	9 .354	0.06 mm – 0.6 mm (AWG 42 – 24) .002 Inch – .023 Inch

Side stripping



120 mm /4.724 Inch
80 g/2.82 oz

- Unique precision for damage-free stripping of fine wires.
- Suitable for all types of insulation, Teflon®, Tefzel and optical fibres.



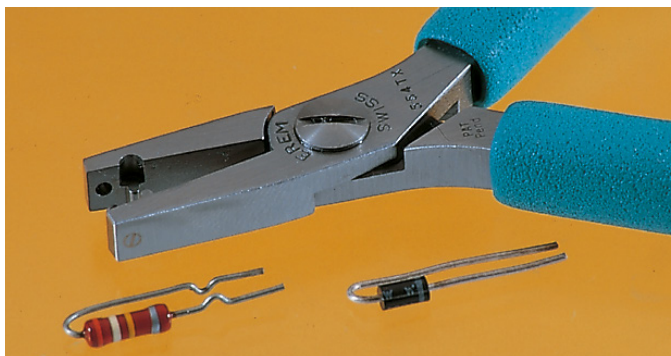
A = jaw length
 E = width of tips
 F = depth of interchangeable blade
 G = total height of both tips
 H = length of cutting blade

Model	Dimensions in mm/Inch					Wire diameter
	A	E	F	G	H	
552S	21 .827	6.5 .256	6.7 .264	11 .433	9 .354	0.06 mm – 0.6 mm (AWG 42 – 24) .002 Inch – .023 Inch

Forming pliers

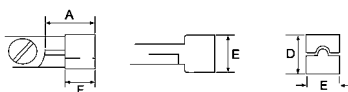
Forming pliers for passive components

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

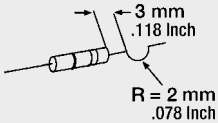


 **120 mm/4.724 Inch**
 **70 g/2.47 oz.**

- Suitable for component connections, U-shape.



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

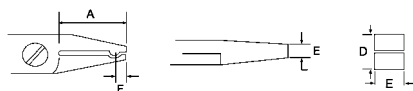
Model	Dimensions in mm/Inch				Max. connection diameter		
	A	D	E	F	Diodes	Capacitors	Resistors
554E* 	13 .512	10 .394	10 .394	10 .394	0.65 mm .025 Inch	0.7 mm .027 Inch	1/2 W

*Order as 554 in North America

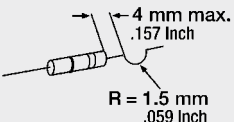


 **120 mm/4.724 Inch**
 **70 g/2.47 oz.**

- 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

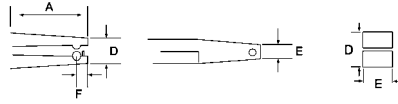
Model	Dimensions in mm/Inch				Max. connection diameter		
	A	D	E	F	Diodes	Capacitors	Resistors
554A 	23 .905	5.6 .220	2.5 .098	4.5 .177	0.65 mm .025 Inch	0.7 mm .027 Inch	1/2 W

Forming pliers for passive components



120 mm/4.724 Inch
70 g/2.47 oz.

- Suitable for secure assembly.
- Forms the two opposing Us in one operation.



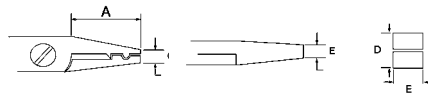
A = jaw length
 D = height of tips
 E = width of tips
 F = length of forming tool

Model	Dimensions in mm/Inch	Max. connection diameter					
		Diodes	Capacitors	Resistors			
554TX 	A	D	E	F			
	20 .787	6.5 .256	6.5 .256	4 .157	0.65 mm .025 Inch	0.7 mm .027 Inch	1/2 W



120 mm/4.724 Inch
67 g/2.36 oz.

- For cutting and bending components into two operations to a predefined length.



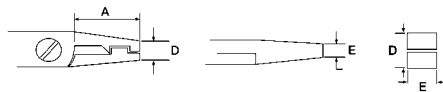
A = jaw length
 D = height of tips
 E = width of tips
 F = length of forming tool

Model	Dimensions in mm/Inch	Max. connection diameter					
		Diodes	Capacitors	Resistors			
50788 	A	D	E	F			
	23 .905	4 .157	3 .118		0.65 mm .025 Inch	0.7 mm .027 Inch	1/2 W



120 mm/4.724 Inch
67 g/2.36 oz.

- For cutting and bending different types of components with two outputs.



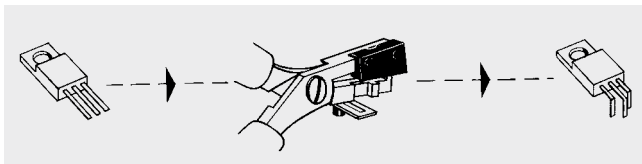
A = jaw length
 D = height of tips
 E = width of tips
 F = length of forming tool

Model	Dimensions in mm/Inch	Max. connection diameter					
		Diodes	Capacitors	Resistors			
50789Z 	A	D	E	F			
	23 .905	3.3 .130	3.5 .138		0.65 mm .025 Inch	0.7 mm .027 Inch	1/2 W

Forming pliers

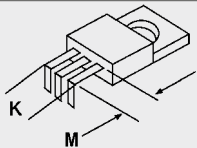
High precision forming tools for active components

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




 **120 mm/4.724 Inch**
 **85 g/3.00 oz.**

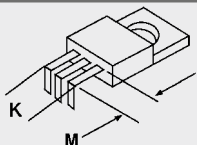
- Suitable for bending flat components, contacts, power transistors, Triac connections to a right angle.

Model	Dimensions in mm/Inch	
	K max.	M
500103A* 	15 .590	3 – 12 .118 – .472



 **120 mm/4.724 Inch**
 **85 g/3.00 oz.**

- Suitable for cutting and bending Series TO components, diodes and mechanical parts to a right angle.
- Easily adjustable with interchangeable cutting edges.

Model	Dimensions in mm/Inch	
	K max.	M
500210E 	11 .433	3.8 – 15 .149 – .590

*Not available in North America

High precision forming tools for active components



120 mm/4.724 Inch
85 g/3.00 oz.

- 3 connections, suitable for bending components of Series TO 126, 218, 220 and power transistors through 90° in two rows.
- Adjusted by means of a screw.

Model		Dimensions in mm/Inch		
		K max.	M	I
500104A		13	3.5 – 15	2.54
		.512	.138 – .590	.100

High precision forming pliers for Flat Packs, Quads



120 mm /4.724 Inch
100 g/3.53 oz.

- Suitable for bending flat components, contacts, power transistors, Triac connections to a right angle.

Model		Dimensions in mm/Inch		
		A	K max.	M
80013C		17	13	2.8
		.669	.512	.110

High precision forming pliers for DIL pins



120 mm/4.724 Inch
98 g/3.46 oz.

- Suitable for cutting and bending DIL pins through 90° in one operation.
- Up to max. 20 DIL pins.

Model		Dimensions in mm/Inch	
		E	F
8091C		25	0.9
		.984	.035

Special tools

IC and SMD tools, Fibre optic tools, Vacuum micromanipulator

- IC and SMD tools with precise fine adjustment for inserting, extracting, straightening and cutting IC and SMD components
- High-precision tools for optical fibres for professional stripping, suitable for cutting Kevlar® silks, Vectran™-sheathed wires, etc.
- Vacuum system for precise handling of tiny SMD components and silicon wafers, suitable for assembly and laboratory work

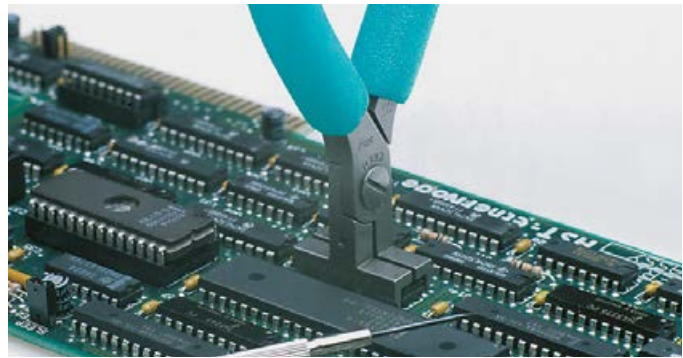




IC and SMD tools

IC and SMD tools

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






Inserting and extracting



 **120 mm/4.724 Inch**

- One screwdriver included for fine adjustments.

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

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	42	1
	.905	1.653	.039

IC and SMD tools

Cutting



110 mm/4.331 Inch
48 g/1.69 oz.

- High-precision tip cutter.
- For connections of SMD micro-packages up to 0.25 mm/.010 Inch, also for pitches smaller than 1/20".
- For μ pitches below 0.5 mm/.019 Inch, you will need the 670EPF model.
- Please send component when ordering.

Model	Cut	Dimensions in mm/Inch		
		A	D	E
670EP		10 .394	3 .118	2 .079



115 mm/4.527 Inch
67 g/2.36 oz.

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

Model	Cut	Dimensions in mm/Inch	
		A	D
593AE		20 .787	4 .157

Kit for SMD work



- 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.

Model	Description
3900KC	Kit for SMD work contents:
51SA	Precision tweezers with very pointed tips, bent 30°, relieved; length 115 mm/4.527 Inch
102ACA	SMD tweezers with angled tips and blunted edges, suitable for vertical working with small components; length 115 mm/4.527 Inch
103ACA	SMD tweezers with angled tips and blunted edges for vertical working with small components; length 115 mm/4.527 Inch
150SAMB	SMD tweezers with bent tips 40°, serrated finger grips for gripping small cylindrical parts, dia. 1.2 – 2.5 mm/.047 – .108 Inch; length 120 mm/4.724 Inch
150SAMF	SMD tweezers with straight tips and serrated finger grips for gripping small cylindrical parts, dia. 1.2 – 2.5 mm/.047 – .108 Inch; length 120 mm/4.724 Inch
670EP	High-precision tip cutter for connections of SMD micro-packages up to 0.25 mm/.010 Inch

Fibre optic tools

High precision tools for optical fibres

- Suitable for simple and precise stripping of optical fibres
- High grade tool steel
- Non-reflecting surface
- ESD-safe

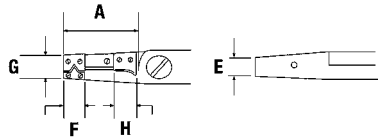


Side stripping



 **120 mm /4.724 Inch**
 **80 g/2.82 oz.**

- Suitable for all types of insulation, Teflon®, Tefzel and optical fibres.
- Unlimited stripping length thanks to side stripping.
- Diameter is set by means of two screws.
- Replaceable cutting blade.



- A = jaw length
- E = width of tips
- F = depth of interchangeable blades
- G = total height of both tips
- H = length of cutting blade

Model	Dimensions in mm/Inch					Wire diameter
	A	E	F	G	H	
552S	21 .827	6.5 .256	6.7 .264	11 .433	9 .354	0.06 mm – 0.60 mm (AWG 42 – 24) .002 Inch – .023 Inch

Holding / gripping



 **120 mm/4.724 Inch**
 **20 g/0.71 oz.**

- Stainless-steel tweezers with synthetic tips (PPS).
- Non-reflecting surface.
- Non-magnetic.

Model	Description
249SA	Precision tweezers with pointed synthetic tips (PPS) to protect optical fibres 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.

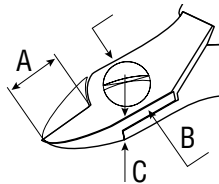
High precision tools for optical fibres

Cutting



 **115 mm/4.527 Inch**
 **67 g/2.36 oz.**

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




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

Model	Dimensions in mm/Inch		
	A	B	C
599FO	15 .590	10.5 .413	6.5 .256



 **115 mm/4.527 Inch**
 **67 g/2.36 oz.**

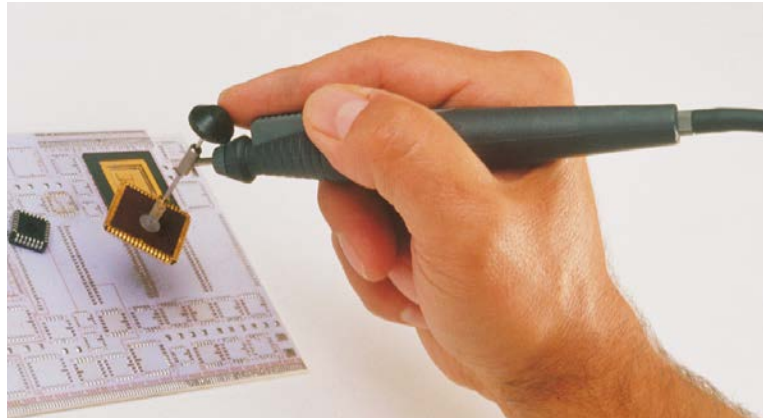
■ Side cutter, suitable for cutting Kevlar® silks, Vectran™-sheathed wires, optical fibres and small stainless wires.

Model	Cut	Dimensions in mm/Inch		
		A	B	C
599TFO	 Semi-flush	15 .590	10.5 .413	6.5 .256

Vacuum micromanipulator

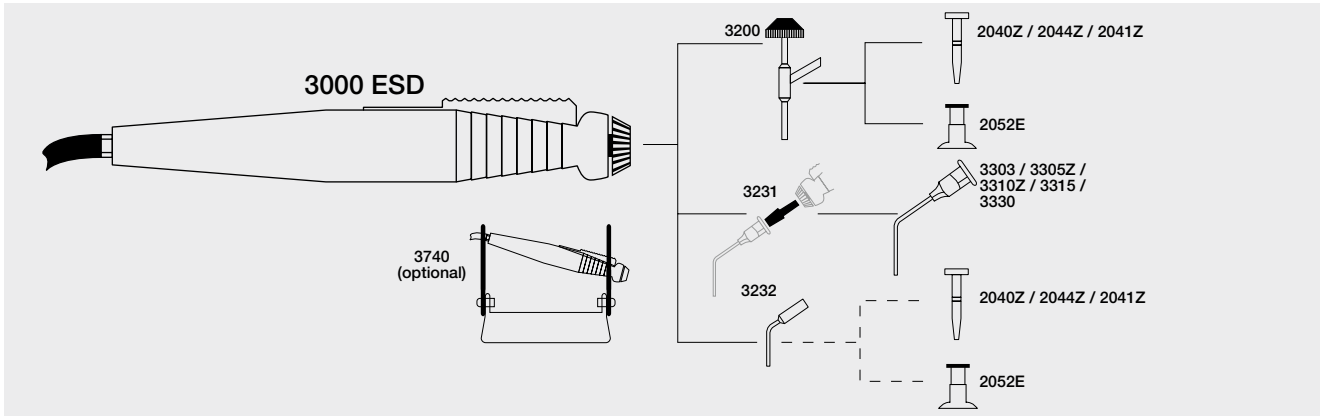
Vacuum micromanipulator

- Professional vacuum system for precise handling of tiny SMD components and silicon wafers
- Suitable for assembly and laboratory work





Advantages of the vacuum micromanipulator:

- Easy picking up of components or silicone wafers
- Immediate set-down/release of parts
- Full 360° rotating system
- Direct axial switch for vacuum
- Ergonomic shape reduces hand and wrist fatigue
- ESD-safe



Handle



 **140 mm/5.512 Inch**
 **35 g/1.23 oz.**

- Ergonomic handle with axial switch, serrated finger grip for secure handling.

Model

Dimensions in mm/Inch

3000ESD*

Dia. 10 mm
.394 Inch

Handle

*Not available in North America




Inserts for 3000ESD housing

Adapters

Model			Description	
3200*		25 mm .984 Inch	15 g 0.53 oz.	Stainless-steel adapter, rotatable through 360°, straight suction tip for direct working or as an adapter for suction tips or suction cups
3231*		5 mm .197 Inch	5 g 0.17 oz.	Adapter fix, for working with Series 3300 suction tips
3232*		15 mm total .590 Inch	3 g 0.10 oz.	Adapter fix, for direct working or as an adapter for suction tips 20442/20412 or suction cup 2052E

Suction tips, straight

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

Model		Outside diameter	Inside diameter
2044Z*		1.3 mm .051 Inch	0.9 mm .035 Inch
2041Z*		2.0 mm .078 Inch	1.4 mm .055 Inch

*Not available in North America

Vacuum micromanipulator

Inserts for 3000ESD housing


Suction needles

- Stainless-steel suction needle.
- Bent 45°.
- For working with 3200 or 3232 adapter.

Model		Outside diameter	Inside diameter
3303*		0.30 mm .011 Inch	0.16 mm .006 Inch
3305Z*		0.50 mm .020 Inch	0.25 mm .019 Inch
3310Z*		1.0 mm .039 Inch	0.65 mm .025 Inch

Suction cups

- Silicone suction cup.
- For working with 3200 or 3232 adapter.

Model		Diameter
2052E*		4.5 mm .177 Inch

*Not available in North America

Inserts for 3000ESD housing

Accessories

Model	Description
3714Z*	Diaphragm pump 230 V, 5 l/min, max. vacuum -250 mbar
3008ESD*	Tube, flexible, 1.8 m/70.866 Inch, ESD-safe
3717*	Filter for tube 3008ESD
3740*	Table holder for 3000ESD (without accessories)

Vacuum kit



- Complete accessories for easy pick-up and immediate set-down of components or silicon wafers.
- Set for laboratory work.
- In an ESD-safe plastic case.

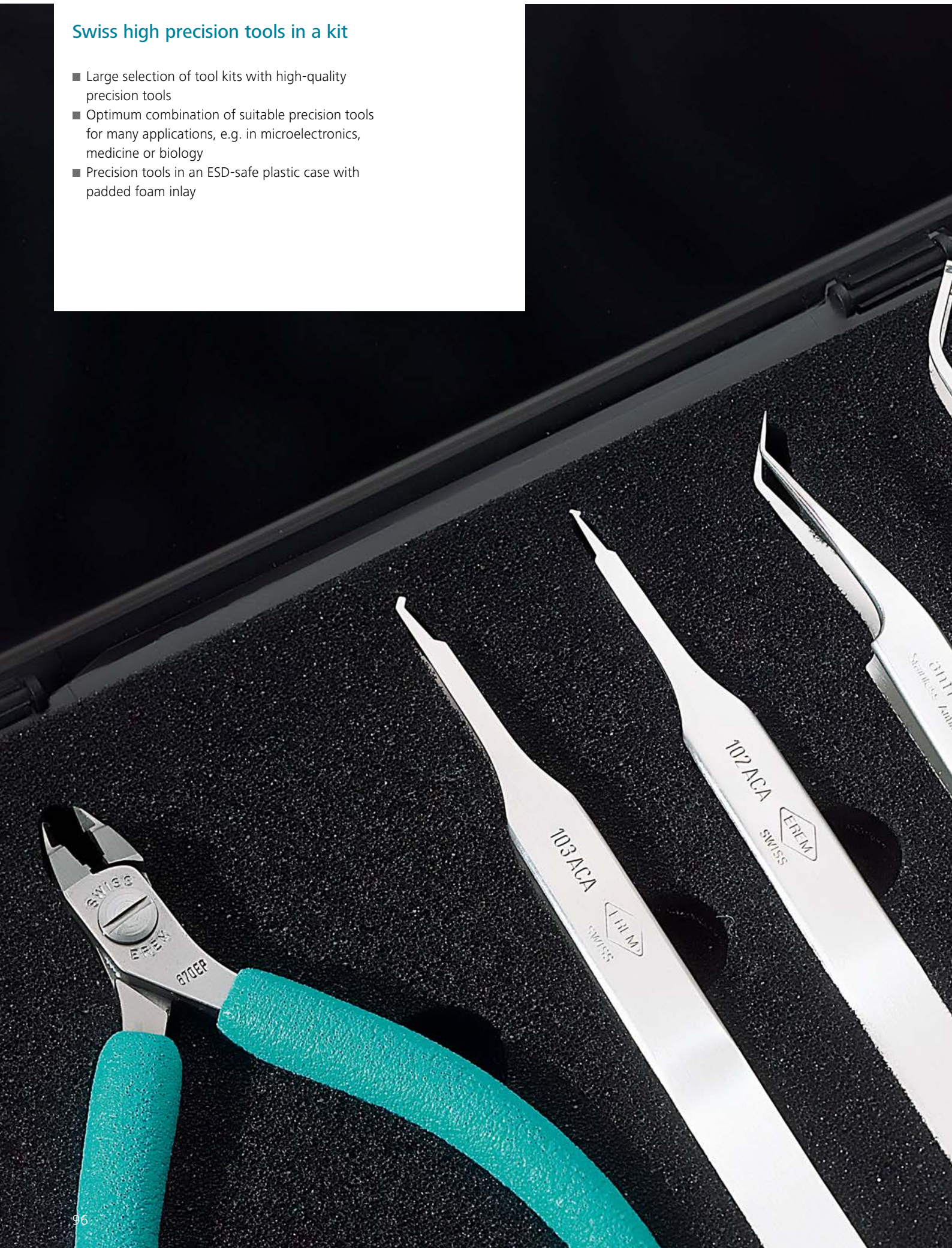
Model	Description
3000KCESD*	Vacuum kit
	contents:
3000ESD	Handle
3200	Adapter, rotatable through 360°
3231	Adapter fix
3305Z, 3310Z, 3315	Suction needles
2052E	Suction cup, dia. 4.5 mm / .177 Inch
KDS 260L	Suction cup, dia. 9.5 mm / .374 Inch
3740	Table holder
3714Z	Diaphragm pump 230 V
3008ESD	Tube, flexible
3717	Filter
102ACA	SMD tweezers, 115 mm / 4.527 Inch, with bent tips and blunted edges. For vertical working with small components. Stainless steel, non-reflecting surface, non-magnetic.

*Not available in North America

Kits

Swiss high precision tools in a kit

- Large selection of tool kits with high-quality precision tools
- Optimum combination of suitable precision tools for many applications, e.g. in microelectronics, medicine or biology
- Precision tools in an ESD-safe plastic case with padded foam inlay





Swiss high precision tools in a kit

Erem Toolset Universal



- 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.

Model	Description	
3600KU*	Erem Toolset Universal	
contents:		
XP600	Precision-screwdriver set for electronics	4 regular screwdrivers: 1.5 x 60 mm/.059 x 2.362 Inch, 2.0 x 60 mm/.078 x 2.362 Inch, 2.5 x 60 mm/.098 x 2.362 Inch, 3.0 x 60 mm/.118 x 2.362 Inch, 2 Phillips screwdrivers No. 0 and No. 00
2412E	Series 2400 MagicSense side cutter, semi-flush, oval head	Robust head for universal use, hard wire 0.5 mm/.019 Inch, medium hardness 1.0 mm/.039 Inch, Cu 1.6 mm/.066 Inch
2442P	Series 2400 MagicSense flat nose pliers	With smooth jaws, precision-machined edges, e.g. for gripping flat workpieces
622NB	Tip cutter, flush, relieved, long, fine head	Miniature cutter for excellent access, flush, medium hardness 0.6 mm/.023 Inch, Cu 0.8 mm/.031 Inch
AASA	Precision tweezers	Pointed tips straight, special stainless steel, non-magnetic
2ASASL	Precision tweezers	With flat rounded tips, tip widths 2 mm/.078 Inch, special stainless steel, non-magnetic

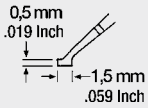
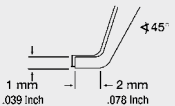
*Not available in North America

Swiss high precision tools in a kit

Erem Toolset SMD



- 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, for SMD work.
- In an ESD-safe plastic case.

Model	Description	
3900KC	Erem Toolset SMD	
contents:		
51SA	Precision tweezers	With very pointed tips, angled 30°, relieved
102ACA	SMD precision tweezers	 Tip width 0.5 mm/.019 Inch, angled 45°
103ACA	SMD precision tweezers	 Tip width 1 mm/.039 Inch, angled 45°
150SAMB	SMD precision tweezers	With round tips, dia. 1.2 mm – 2.5 mm/.047 Inch – .098 Inch, angled 40°, serrated finger grips for gripping cylindrical components
150SAMF	SMD precision tweezers	With round, very narrow tips, dia. 1.2 mm – 2.5 mm/.047 Inch – .098 Inch, serrated finger grips
670EP	Miniature tip cutter, flush, relieved head	For SMD and micro-package contacts up to 0.25 mm/.010 Inch

*Not available in North America

Swiss high precision tools in a kit

Erem 2400 MagicSense



- 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.

Model	Description	
2400KMS*	Erem 2400 MagicSense	
contents:		
2412E	Series 2400 MagicSense side cutter, semi-flush, oval head	Robust head for universal use, hard wire 0.5 mm/.019 Inch, medium hardness 1.0 mm/.039 Inch, Cu 1.6 mm/.062 Inch
2482E	Series 2400 MagicSense tip cutter, flush, narrow head	Angled 45°, ideally suitable for working on printed-circuit boards, component connections, can be used in both 90° and 180° applications
2411P	Series 2400 MagicSense needle nose pliers	Smooth, rounded jaws

*Not available in North America

Swiss high precision tweezers in a kit

Erem Tweezers Prime Selection



- 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.

Model	Description
3300TPS*	Erem Tweezers Prime Selection
contents:	
3SA	Precision tweezers With pointed tips straight
2ASA	Precision tweezers With flat rounded tips for gripping smaller components, tip width 2 mm/.078 Inch
7SA	Precision tweezers Curved, relieved, with pointed tips

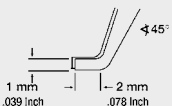
*Not available in North America

Swiss high precision tweezers in a kit

Erem SMD Tweezers – Universal



- 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.

Model	Description
3400TSMDU*	Erem SMD Tweezers – Universal
contents:	
103ACA	SMD precision tweezers  Angled 45°, tip width 0.5 mm/.019 Inch
150SAMF	SMD precision tweezers With round tips, angled 40°, serrated finger grips for secure handling, for gripping cylindrical components
102ACAX	SMD precision tweezers With angled pointed tips for vertical use, reverse clamping action for easy handling
7SA	Precision tweezers Curved, relieved, with pointed tips

*Not available in North America

Swiss high precision tweezers in a kit

Erem Premium Tweezers



- 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.

Model	Description	
3500TP*	Erem Premium Tweezers	
contents:		
3SA	Precision tweezers	With pointed tips straight
2ASA	Precision tweezers	With flat rounded tips for gripping small components, tip width 2 mm/.078 Inch
7SA	Precision tweezers	Curved, relieved, with pointed tips
102ACA	SMD precision tweezers	Tip width 0.5 mm/.019 Inch, angled 45°
15AGW	Cutting tweezers	With narrow oblique head, for soft wires, hardened cutting edges for increased service life

*Not available in North America

Swiss high precision tools in a kit

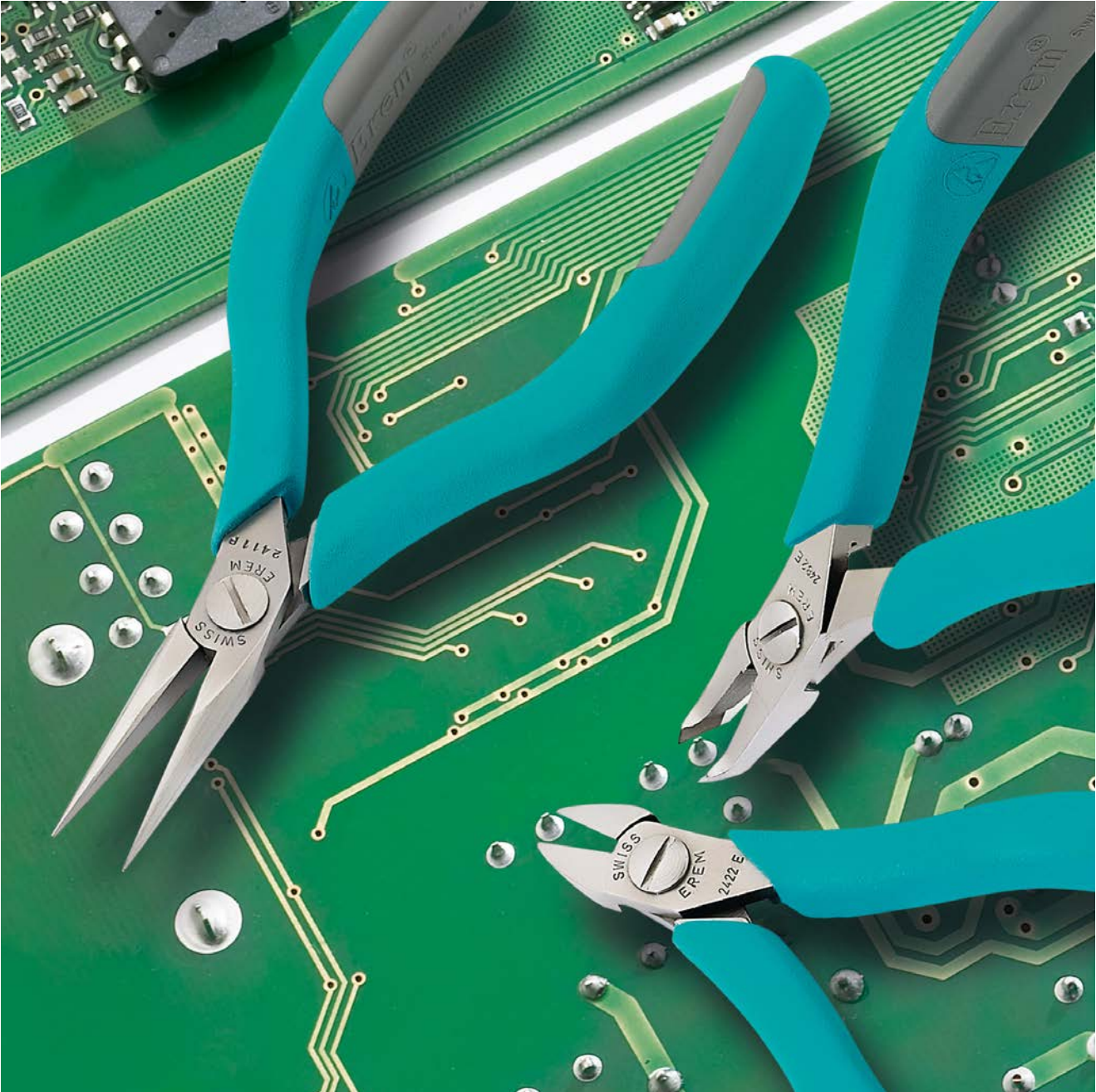
Vacuum kit



- Complete accessories for easy pick-up and immediate set-down of components or silicon wafers.
- Set for laboratory work.
- In an ESD-safe plastic case.

Model	Description	
3000KCESD*	Vacuum kit	
contents:		
3000ESD	Handle	Size: 400 x 320 x 150 mm/15.748 x 12.598 x 5.905 Inch, 2.2 kg, with axial switch, ergonomic, serrated finger grip
3200	Adapter, rotatable through 360°	Stainless-steel adapter, rotatable through 360°, straight suction tip for direct working or as an adapter for section tips or suction cups
3231	Adapter fix	For working with 3300 suction tips
3305Z, 3310Z, 3315		Suction needles, 45°, stainless steel For working 3231 adapter
2052E	Suction cup, dia. 4.5 mm/.177 Inch, silicone	For working with 3200 or 3232 adapter
KDS 260L	Suction cup, dia. 9.5 mm/.374 Inch	
3740	Table holder	
3714Z	Diaphragm pump	230 V, 5 l/min, max. vacuum -250 mbar
3008ESD	Tube, flexible,	1.8 m, ESD-safe
3717	Filter	for tube 3008ESD
102ACA	SMD tweezers	115 mm/4.527 Inch, with curved tips and blunted edges, for vertical working with small components, stainless steel, non-reflecting surface, non-magnetic

*Not available in North America



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