

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/aerospace, biology, medical accessories, the watch industry, and telecommunications.

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.







High Precision Tweezers

Erem Tweezers Introduction

The following pages show a selection of Erem high precision tweezers for the electronics industry. They are available in various shapes,

finish, and materials such as: Temperature resistant to 300°C.

Suffix Material S Stainless Steel.

SA Non-magnetic, anti-acid alloy.

N Non-magnetic nickel-silver alloy.

TA Non-magnetic titanium

TA Non-magnetic titanium. None Tempered carbon steel.

Reference Dimensions



Pointed Tips Straight

Erem Coatings

The exclusive Erem Pyroplast coating is available by special order on many models.

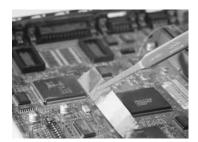
This coating protects sensitive parts against temperature change.

Features and benefits:

- Twice the heat resistance of Teflon (500°C).
- The non-stick property of the Pyroplast coating results in no capillary effect on the tweezers tips while soldering.
- No contamination can be caused by either a positive or negative charge.
- · Resistant to radiation.
- · Coating thickness is 40 microns.

Typical applications for Erem high precision tweezers:

- Electronic assembly
- · Component handling
- Soldering
- · Wire and lead cutting
- Gripping
- Wafer handling
- · Wire stripping
- Biomedical



Description Material No. Shelf Pack M₅S • Precision micro tweezers Stainless Steel Very small and fine tips • 80mm, 6g • Precision tweezers ACSA Special Stainless Steel Non-magnetic Serrated grips • 108mm, 16g Precision micro tweezers 20AS • Stainless Steel · Serrated grips and inside serrated tips • Guide pin to avoid tip overlapping • 80mm, 6g Precision tweezers 3CS Stainless Steel Long tips • 110mm, 11g 3CSA • Precision tweezers Special Stainless Steel • Non-magnetic . Shorter tips than 3CS • 110mm, 11g 3CSASL same as 3CSA but economy model · Precision tweezers 3CTA Titanium Non-magnetic . Same as 3CSA but Titanium for heat resistance and light weight • 110mm, 8g Precision tweezers for handling of delicate parts 53CSA Special Stainless Steel • Non-magnetic

• 110mm, 11g



Pointed Tips Straight (cont.)

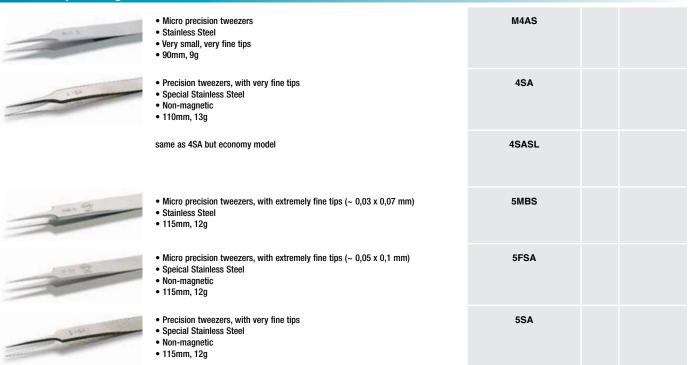
	Description	Material No.	Shelf Pack
510	 Precision tweezers Special Stainless Steel Non-magnetic Fine tips 120mm, 14g 	3SA	
	same as 3SA but economy model	3SASL	
141	 Precision tweezers Special Stainless Steel Non-magnetic Thicker tips than 3SA 120mm, 14g 	1SA	
	same as 1SA but economy model	1SASL	
20 6	 Precision tweezers Special Stainless Steel Non-magnetic Flat inside tips, very resistant 120mm, 14g 	OOSA	
	same as OOSA but economy model	OOSASL	
100 EZ	 Precision tweezers Special Stainless Steel Non-magnetic Same as 00SA but shorter 120mm, 18g 	OOCSA	
	 Precision tweezers with serrated grips Special Stainless Steel Non-magnetic Same as 00SA but with serrated tips 120mm, 20g 	OOBSA	
	 Precision tweezers Same as 00SA but with serrated grips and inside serrated tips Special Stainless Steel Non-magnetic 120mm, 20g 	OODSA	
1000	 Precision tweezers with serrated grips Special Stainless Steel Non-magnetic 120mm, 17g 	64SA	
	 Precision tweezers Nickel-Silver alloy Absolute non-magnetic 120mm, 17g 	11N	
	 Precision tweezers Nickel plated 120mm, 16g	AAZ	
at re	 Precision tweezers Stainless Steel Short but fine tips 125mm, 16g 	AAS	
un 60	 Precision tweezers Special Stainless Steel Non-magnetic 12mm, 16g 	AASA	
	same as AASA but economy version	AASASL	



Pointed Tips Straight (cont.)

	Description	Material No.	Shelf Pack	
	 Precision tweezers Brass Soft metal protects sensitive parts against damage No sparks 125mm, 17g 	АМ		
	 Precision tweezers with synthetic (PPS) tips Special Stainless Steel Non-magnetic Heat resistant up to 250°C Serrated grips 130mm, 20g 	249SA		
	 Precision tweezers with Ceramic tips Special Stainless Steel Non-magnetic Heat resistant up to 900°C 130mm, 24g 	249CER		
	 Precision tweezers Stainless Steel Large, very strong, long version 140mm, 30g 	RRS		
The state of the s	 Precision tweezers Special Stainless Steel Non-magnetic Very narrow and long handles Low tension 140mm, 11g 	SSSA		
	 Precision tweezers reverse action Fibre-grip handles Special Stainless Steel Non-magnetic 150mm, 26g 	29SA		
	 Precision tweezers with serrated grips and inside serrated tips Long version, strong Special Stainless Steel Non-magnetic 160mm, 23g 	21SA		

Pointed Tips Straight Relieved





Pointed Tips Straight Relieved (cont.)							
	Description	Material No.	Shelf Pack				
	same as 5SA but economy model	5SASL					
- 3	 Precision tweezers with medium size tips Special Stainless Steel Non-magnetic 115mm, 16g 	2SA					
	same as 2SA but economy model	2SASL					
	 Precision tweezers with synthetic (PPS) tips Special Stainless Steel Non-magnetic ESD safe Heat resistant up to 250°C 120mm, 15g 	258SA					
Pointed Tips Bent							
The state of the s	 Precision tweezers with fine tips Curved 40° Stainless Steel 110mm, 15g 	3CBS					
	 Precision tweezers with fine tips Curved 30° Special Stainless Steel Non-magnetic, relieved 115mm, 12g 	5CSA					
	 Precision tweezers with very fine tips Curved 30° Special Stainless Steel Non-magnetic, relieved 115mm, 12g 	5BSA					
14	 Precision tweezers with finer tips than 5CSA Curved 30° Special Stainless Steel Non-magnetic, relieved 115mm, 12g 	51SA					
	same as 51SA but economy model	51SASL					
100	 Precision tweezers with fine tips Oblique 15° Special Stainless Steel Non-magnetic 115mm, 12g 	5ASA					
	same as 5ASA but economy model	5ASASL					
	 Precision tweezers with fine tips Curved Special Stainless Steel Non-magnetic, relieved 120mm, 15g 	7SA					
	same as 7SA but economy model	7SASL					
	 Precision tweezers bent 50° Fine tips, long version Special Stainless Steel Non-magnetic 140mm, 11g 	65ASA					

Pointed Tips Bent (cont.)



- Precision tweezers bent 40°
- Alignment pin

Description

- Serrated grips and inside serrated tips
- Special Stainless Steel
- Non-magnetic
- 150mm, 22g



- Precision tweezers bent 50° with fibre-grip handles
- Reverse action
- · Special Stainless Steel
- Non-magnetic
- 150mm, 26g

Flat Round Tips Straight



- Precision tweezers
- Non-magnetic
- Medium round tips for gripping tip side 2mm
- 120mm 15d



same as 2ASA but Teflon coated tips for handling delicate parts



- Precision tweezers with anti-adhesive coated tips for handling adhesive parts
- Special Stainless Steel
- Non-magnetic
- 120mm, 16g



- Precision tweezers with flat round tips
- Serrated grips
- Special Stainless Steel
- Non-magnetic
- 120mm, 15g



- Precision tweezers
- Crush-proof design for handling delicate parts
- Special Stainless Steel
- 120mm, 15g

Non-magnetic

E5SA

Material No.

24SA

30SA

2ASASL

2ASASLT

2ASARU

25SA

52ASA

Shelf Pack











EOODSA



Precision Tweezers with Ergonomic Handles



- Precision tweezers with very fine tips
- Special Stainless Steel
- Non-magnetic
- ESD safe
- 120mm, 25g



- Precision tweezers with long fine tips
- Special Stainless Steel
- Non-magnetic
- ESD safe
- 120mm, 25g



- Precision tweezers with straight and sturdy tips
- Special Stainless Steel
- Non-magnetic
- ESD safe
- 120mm, 30g



same as EOOSA but serrated tips



Precision Tweezers with B	Ergonomic Handles (cont.)			
D	escription		Material No.	Shelf Pack
	Precision tweezers curved Special Stainless Steel Non-magnetic ESD safe 120mm, 28g		E7SA ESD SAFE	
	Precision tweezers flat round tips Special Stainless Steel Non-magnetic ESD safe 120mm, 28g		E2ASA ESD SAFE	
	Cutting tweezers Carbon steel ESD safe 120mm, 30g		E15AGW ESD SAFE	
SMD Tweezers				
500	SMD tweezers Angled head 45° Special Stainless Steel Non-magnetic 115mm, 15g	0,5 mm ↓ ↑ → I I+-1,5	102ACA	
	SMD tweezers Angled head 45°, reverse action Special Stainless Steel Non-magnetic 115mm, 14g		102ACAX	
93/s	SMD tweezers Angled head 45° Special Stainless Steel Non-magnetic 115mm, 15g	1 mm 2 mm	103ACA	
	SMD tweezers curved head Ø 0,3 mm Serrated grips Special Stainless Steel Non-magnetic 110mm, 15g		39SA	
	SMD tweezers curved head Ø 0,4 mm Serrated grips Special Stainless Steel Non-magnetic 110mm, 15g		40SA	
\Es	SMD tweezers curved head Ø 1,2 - 2,5 mm Serrated grips Special Stainless Steel		150SAMB	







 Serrated grips Special Stainless Steel Non-magnetic 110mm, 15g
SMD tweezers curved head Ø 1,2 - 2,5 mm Serrated grips Special Stainless Steel Non-magnetic 120mm, 13g
SMD tweezers curved head Ø 1,5 - 3 mm Serrated grips Special Stainless Steel Non-magnetic 120mm, 13g
SMD tweezers curved head Ø 1,5-3 mm Serrated grips Special Stainless Steel Non-magnetic 120mm, 13g
SMD tweezers curved head Ø 3-6 mm Serrated grips Special Stainless Steel Non-magnetic 120mm, 13g
SMD tweezers bent 45° Curved head Ø 5 mm Special Stainless Steel Non-magnetic 115mm, 17g

102ACA	
102ACAX	
103ACA	
39SA	
40SA	
150SAMB	
150SAD	
150SA	
151SA	
32BSA	

SMD Tweezers (cont.)



Description	Material No.	Shelf Pack	
SMD tweezers bent 45° Curved head Ø 2 mm Special Stainless Steel Non-magnetic 115mm, 17g	32BSA20		
SMD tweezers bent 45° Curved head Ø 2,5 mm Special Stainless Steel Non-magnetic 115mm, 17g	32BSA25		
 SMD tweezers bent 40° Curved head Ø 1,2-2,5 mm, serrated grips Special Stainless Steel Non-magnetic 115mm, 13g 	150SAMB		

Special Gripping Tweezers



- Gripping tweezers with locking clip
- Stainless Steel
- 120mm, 17g

940AS

Wafer Tweezers



- Wafer tweezers 3"-4"
- Serrated grips
- Special Stainless Steel
- Non-magnetic
- 125mm, 15g



- Wafer tweezers 6"
- Serrated grips
- · Special Stainless Steel
- Non-magnetic
- 130mm, 23g



- Wafer tweezers 6"
- Serrated grips
- Special Stainless Steel
- Non-magnetic
- 130mm, 23g



- Wafer tweezers with free-floating Teflon paddle, 4"-6"
- Serrated grips
- Special Stainless Steel
- Non-magnetic
- 130mm, 24g



- Wafer tweezers with Polyester tips protecting delicate parts, 4"-6"
- Serrated grips
- Special Stainless Steel
- Non-magnetic
- 150mm, 30g

same as 141SAP but with Halar coating (acid-resistant), plastic tips without pigmentation

915A	
600ASA	
608ASA	
600JSA	
141SAP	
141SAPH	

Cutting Tweezers



- Cutting tweezers
- Carbon steel
- Blade 5,5mm
- 115mm, 21g
- Cutting tweezers
- Carbon steel
- Blade 9,5mm
- 115mm, 26g

15AGS	
15AGW	



Shelf Pack

Stripping Tweezers



 Stripping 	twoozore	Ø 0 25	mm	(AMC	30/
• Stribbing	tweezers	ข บ.25	mm	(AWG	3U)

- Stainless Steel
- 120mm, 22g

Description

- Stripping tweezers Ø 0,2 mm (AWG 32)
 Stainless Steel
- 120mm, 22a
- Stripping tweezers Ø 0,16 mm (AWG 34) Stainless Steel
- 120mm, 22g
- Stripping tweezers Ø 0,13 mm (AWG 36)
- Stainless Steel
- 120mm, 22g
- Stripping tweezers Ø 0,08 mm (AWG 40)
- Stainless Steel
- 120mm, 22g



- . Stripping tweezers with fibre handles 0,25 mm
- Reverse action AWG 30
- Stainless Steel
- 120mm, 28g

Replacement knife for 29W30

Extraction Tweezers



- Extraction tweezers
- Stainless Steel
- Ø 1,75 mm / inside, Ø 2,15 mm / outside

Premium Tweezers Tool Set - 3 Piece



- 3 piece tweezer set in ESD safe plastic case
- High quality precision tweezers for microelectronics, light engineering, laboratory work, biology and medicine
- Set with three frequently used tweezers:
 3SA Precision Tweezer with pointed, straight tips
 2ASA Precision Tweezer with flat rounded tips, 2mm/.078" width,
- special stainless steel, non magnetic 7SA - Precision Tweezer, curved, relieved, with pointed tips
- · Special stainless steel, non-magnetic, non-rusting, acid-proof tools

3300TPS

3400TSMDU

Material No.

29Y30

29Y32

29Y34

29Y36

29Y40

29W30

XB29W301

024C

Premium Tweezers Tool Set - 4 Piece



- 4 piece tweezers kit in ESD safe plastic case

- 4 piece tweezers kit in ESD safe plastic case
 High quality precision tweezers, non magnetic, for SMD work with assorted shapes of chip (Chip, SOT, MELF's, Mini MELF's, Flatpacks)
 Blunted edges prevent PCB damage
 Set with four frequently used tweezers: 103ASA SMD Precision Tweezers, tip width 1mm/.039" angled 45° 150SAMF SMD Precision Tweezers with round tips, Diam 1.2-2.5mm/.047-.098", angled 40°, serrated finger grips for gripping cylindrical components 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
 Special stainless steel, non-magnetic, non-rusting, acid-proof tools

Premium Tweezers Tool Set - 5 Piece



- 5 piece tool kit in an ESD safe plastic case

- 5 piece tools kt in an ESD sare plastic case
 High quality precision tweezers for microelectronics, light engineering, laboratory work, biology and medicine
 Blunted edges prevent PCB damage
 Set with five frequently used tweezers:
 3SA Precision Tweezers with pointed, straight tips
 2ASA Precision Tweezer with flat rounded tips, 2mm/.078" width, special stailless steel non magnetic
- special stainless steel, non magnetic
 7SA Precision Tweezers, curved, relieved, with pointed tips
 102ACA SMD Precision Tweezers with tip width of 0.5mm/.019",
 angled 45°
- 15AGW Cutting Tweezers with narrow oblique head, for soft wires and hardened cutting edges for increased service life
 Special stainless steel, non-magnetic, non-rusting, acid-proof tools

00TP	



Advantages, Specifications and Listings

Technology

Special tool steel

Machined from high grade laminated tool steel for strength and toughness

Invisible Erem Magic Spring licensed

- return Magic Spring internally mounted
- constant opening and closing force
- 1 million operations guaranteed

Selfblocking screwing system

- machined surfaces hold together by an interlocking precision screw
- ensures wobble free operation
- eliminates blade overlap

Blade opening limited to 5mm

Reduces operator fatigue by limiting the handle spread

Cut - blade specificity

Blade hardening

By induction heat treatment to 63-65 HRc Rockwell to impart strength and long life



1. Semi Flush

For general cutting applications in which the shape of the cut is not important. Leaves a wedge shape on the material to be cut. For hard and soft wires, robust and long lasting.



2. 1 10311

For soft steel and copper wires. The cutting effort is reduced and the component is subjected to less shock. A much smaller wedge shape is left on the material to be cut. Used for general purpose cutting, or where greater precision is required.



3. Super Full Flush

This cut provides absolutely flush wire ends. For copper wires. Reducing pressure on sensitive components and shock absorbing.

Service

Resharpening

Free of charge resharpening on almost all cutters that have failed through normal wear (up to 3 times).

Erem guarantees

Perfect functioning of cutters / pliers and the quality of the steel. Each tool being made with care and precision.



Series 2400 MagicSense

Grips

- · soft for operator and reduce fatigue
- firm for increased operator control
- · non slip for better grip

Ergonomic shape

 automatically positions the operators hand to spread pressure evenly over the tool handles to reduce the incidence of trauma disorders to the fingers, hand, wrist and arm.

Erem Series

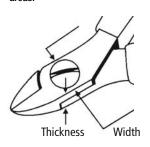
Micro





Size Width 9,0 mm Thickness 6,0 mm

Miniature cutters for extremely fine electronics. Large variety of head forms offering improved access into confined areas.



Medium



Series 2400 MagicSense



Width 11,0 mm Thickness 6,0 mm



11,0 mm

Width
Thickness 6,5 mm

Medium size cutters. Large variety of head forms combining strength, reach and high cutting capacity. The series 2400 MagicSense offers an optimized ergonomic form and an improved degree of hardness.





Series 800



Width 13,5 mm Thickness 7,5 mm

The strongest and toughest series for general electronics. Cuts relatively large wire sizes.





How to choose the right tool?

Shape	Access, space availability, visibility	Series 600 Micro	Series 2400 MagicSense	Series 500 Medium	Series 800 Maxi
Tip Cutter - straight, tapered and relieved head	The smallest cutting head. Provides improved access and visibility.	670E*, 670EP*, 670EPF*	2470E	570E, 573E**	
		* very short head		** straight head for vertical use	
Tip Cutter - tapered and relieved head	The smallest cutting head. The underside is cut away, allowing to gain access into difficult areas.	622NB, 632NCF, 676E, 776E		592E, 792E	884E
	Laws and name		04755 04905	FFFF F70F F7FF	
Tip Cutter - angled, narrow head	Long and narrow head for better reach between parts and into areas with limited access.		2475E, 2482E	555E, 572E, 575E, 582E, 593AE	
Tip Cutter - angled, wide head	For standard tip cutting applications. Combining strength, reach and high cutting capacity.		2403E, 2404E	503E	
Side Cutter - tapered head	For cutting tasks where easier access is required. Better tip access than the oval head with minimal impact on the cutting capability.	622NA	2477E	577E, 595E	886E
Side Cutter - oval head	The most common head shape. For standard cutting applications. Combining strength and flexibility. High cutting capacity.	612N, 622N, 632N	2412E, 2422E, 2432E	512E, 512N, 522N, 532N, 599E	812N, 822N, 896E
	High cutting capacity				

Wire Definitions

- Piano wire, hardened spring steel, material 1.4310, tensile strength of wire 2000-2600 MPa
- Hard wire, material 1.4301, tensile strength of wire 1800 MPa
- Medium hard wire, material 1.4301, tensile strength of wire 800 MPa
- Soft wire, copper, aluminium, tensile strength of wire 250 MPa



Cutters

Series 600 Micro - high grade tool steel, ESD safe, resharpenable

Miniature cutters for extremely fine electronics offering improved access into confined areas.

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

Side Cutters - oval head

The most common cutting head for standard cutting applications. The robust cutting head allows high cutting capability.



Description

Side cutter semi flush cut, small head for very good access, medium hard wire 0,8 mm, hard wire 0,5 mm, Cu 1,3 mm, 110mm, 48g



Side cutter flush cut, small head for very good access, medium hard wire 0,8 mm, Cu 1,3 mm, 110mm, 48g

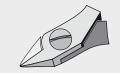


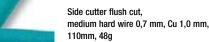
Side cutter super full flush cut, small head for very good access, medium hard wire 0,7 mm, Cu 1,3 mm, 110mm, 48g

Material No.	Shelf Pack	
612N		
ESD SAFE		
622N		
ESD SAFE		
632N		
ESD SAFE		

Side Cutters - tapered head

Small tapered head for cutting application in dense working areas.











Tip Cutters - tapered and relieved head

Fine cutter head. One side is cut away for access even in confined areas



Description

Side cutter flush cut, super fine relieved head, allows very good access, medium hard wire 0,6 mm, Cu 0,8 mm, 110mm, 48g



Side cutter flush cut, same as 622NB, short cutting head and more robust medium hard wire 0,6 mm, Cu 0,8 mm, 110mm, 48g



Side cutter super full flush cut, miniature side cutter, super fine relieved head, allows very good access, medium hard wire 0,6 mm, Cu 0,8 mm 110mm, 48g



Side cutter super full flush cut, only for soft materials (see page 34, Specials) 110mm, 48g

Material No.	Shelf Pack	
622NB		
ESD SAFE		
676E		
ESD SAFE		
776E		
ESD SAFE		
632NCF		

Tip Cutters - straight, tapered and relieved head

Fine cutter head allows access even in confined areas.





Tip cutter, flush cut, vertical, short head, medium hard wire 0,5 mm, Cu 0,8 mm 110mm, 48g



Tip cutter, flush cut, vertical, very precise, short head, for PCBs and micro packages up to 0,25 mm, medium hard wire 0,4 mm, Cu 0,6 mm 110mm, 48g



Same as 670EP but finer version for micro pitches uder 0,5 mm, short head, 110mm, 48g

670E	
ESD SAFE	
670EP	
ESD SAFE	
670EPF	
ESD SAFE	



Cutters

Series 2400 MagicSense - high grade tool steel, ESD safe, resharpenable

Medium size. Combines robustness, view and accessibility. The series 2400 MagicSense offers optimal ergonomic shape and very high hardness grade.

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

Side Cutters - oval head

The most common cutting head for standard cutting applications. The robust cutting head allows high cutting capability.



Description

Semi flush cut, robust cutting head for general cutting applications, high cutting capability, medium hard wire 1,0 mm, hard wire 0,5 mm, Cu 1,6 mm, 130mm



Flush cut, robust head for general cutting applications, high cutting capability, for soft wire, medium hard wire 1,0 mm, Cu 1,6 mm, 130mm



Super full flush cut, rasor blades cut medium hard wire 0,8 mm, Cu 1,6 mm,

2412E ESD SAFE 2422E ESD SAFE 2432E

Shelf Pack

Material No.

Side Cutters - tapered head

Small tapered head for cutting application in dense working areas.



Flush cut, tapered head, for cutting application in dense working areas, medium hard wire, 1,0 mm, Cu 1,3 mm,



Tip Cutters - angled, wide head

Angled head for precision, reach and operator visibility.



Flush cut, blunt and robust cutting head, very precise cut, tip cutter for general cutting applications, angled 30° medium hard wire 1,0 mm, Cu 1,6 mm, 130mm



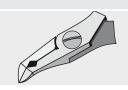
Flush cut, same as 2403E, but with fine and rounded head, angled 30° medium hard wire 0,8 mm, Cu 1,3 mm, 130mm

2403E	
2404E ESD SAFE	



Tip Cutters - angled, narrow head

Angled head for precision, reach and operator visibility.



Description

Flush cut, medium size, especially for cutting on circuit boards and DIL, for 90° and 180° operation cuts, angled 45° medium hard wire 0,6 mm, Cu 1,2 mm, 135mm

2482E 2475E

Shelf

Material No.



Flush cut, for fine work at hybrid or micro component, allows very good access, angled 45° medium hard wire 0,4 mm, Cu 0,6 mm,

Tip Cutters - straight, tapered and relieved head

Long, fine straight tapered head for good access to narrow places.



Flush cut, angled head, for horizontal cutting and good access to narrow places, tip cutter for cutting at the extreme tip, medium hard wire 0,4 mm, Cu 0,6 mm, 140mm

2470E

ESD Tool Set - 3 Piece



ESD Tool Kit - 3 Pce - Contains 2412E, 510AE, 2411P ESD Tools

- 3 piece tool kit in an ESD-safe plastic case
 For use in electronics, PCB assembly, wire, connection handling and Stripping of fine wires
 MagicSense moulded handle with soft touch for increased comfort
- 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
 Internal Erem Magic Spring: constant spring force, guarantees more
- High precision screw joint: smooth jaw action with no play, smooth

cutting operation with no jaw overlapping

Maximum opening stop: the limited extent to which the handles can open prevent user hand fatigue

Set with three frequently used tweezers:

2412E - Ergo, oval head, semi flush, for hard wire .5mm, medium hardness 1mm, Cu 1.6mm

510AE - High precision stripping pliers (AWG30 - 18), suitable for all types of insulation and optical fibres. Integral side cutting blade 2411P - Ergo, needle nose plier, with very precise, smooth and rounded

MagicSense 2400 ESD Tool Set - 3 Piece



MagicSense 2400 ESD Tool Set - 3 Pce - Contains 2412E, 2482E,

- Magicsense 2400 ESD 1001 Set 3 PCe Contains 2412E, 2482E, 2411P ESD Tools
 3 piece tool set in an ESD-safe plastic case
 For use in electronics, PCB assembly, wire, connection handling
 MagicSense moulded handle with soft touch for increased comfort
- 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
 Internal Erem Magic Spring: constant spring force, guarantees more

- Internal Erem Magic Spring: 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
 Maximum opening stop: the limited extent to which the handles can open prevent user hand fatigue
 Set with three frequently used tweezers:
 2412E Ergo, oval head, semi flush, for hard wire .5mm, medium hardness 1mm, Cu 1.6mm
 2482E Ergon oned tip cutter, 45° angled narrow head, flush
 2411P Ergo, needle nose plier, with very precise, smooth and rounded iaws

rounded jaws

2400KMS

2450K



Cutters

Series 500 Medium - high grade tool steel, ESD safe, resharpenable

Medium size. Combines robustness, view and accessibility. Big variety of cutting heads for precise cutting in dense working areas.

	Micro			Medium	Maxi
b a					
	Series 600	New	Series 2400 MagicSense	Series 500	Series 800
Width a	9,0 mm		11,0 mm	11,0 mm	13,5 mm
Thickness b	6,0 mm		6,0 mm	6,5 mm	7,5 mm

Side Cutters - oval head

The most common cutting head for standard cutting applications.
The robust cutting head allows high cutting capability.











\sim	

Description

Side cutter semi flush cut, economical line, robust, for general cutting applications and precise working, high cutting capability, medium hard wire 1,0 mm, hard wire 0,5 mm, Cu 1,6 mm, 115mm, 67g

Side cutter semi flush cut, same as 512N but burnished head, medium hard wire 1,0 mm, hard wire 0,5 mm, Cu 1,6 mm, 115mm, 67g

Side cutter flush cut, economical line, robust, for general cutting applications and precise working, high cutting capability, medium hard wire 1,0 mm, Cu 1,6 mm, 115mm, 67g

Side cutter flush cut, with short and robust head, medium hard wire 1,0 mm, Cu 1,6 mm, 115mm, 67g

Side cutter super full flush cut, for precise cutting, with very sharp cut, medium hard wire 0,8 mm, Cu 1,6 mm, 115mm, 67g

Ма	teri	al f	No.	

Shelf Pack

512N
ESD SAFE









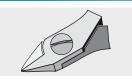


Side Cutters - tapered head

The small tapered cutter allows cutting in dense working areas.







Side cutter flush cut, small tapered head for cutting in dense working areas, medium hard wire 1,0 mm, Cu 1,3 mm, 115mm, 67g

Side cutter flush cut, small short tapered head for cutting in dense working area, medium hard wire 1,0 mm, Cu 1,3 mm, 115mm, 67g







Shelf Pack

Tip Cutters - angled, wide head

Angled head for precision, reach and operator visibility.



Description

Tip cutter flush cut 30°, wide and robust cutting head but precise cut, for general cutting applications, medium hard wire 1,0 mm, Cu 1,6 mm, 110mm, 67q



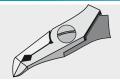
Tip cutter flush cut 30°, same as 503E but with fine rounded head, medium hard wire 0,8 mm, Cu 1,3 mm, 110mm, 67g

503E ESD SAFE	
504AE ESD SAFE	

Material No.

Tip Cutters - angled, narrow head

Angled head for precision, reach and operator visibility.



operator visibility.



Tip cutter flush cut 35°, small cutting head, strong version, for cutting applications in confined areas where high cutting capacity is required, medium hard wire 0,6 mm, Cu 1,3 mm, 120mm, 68g



Tip cutter flush cut 40° , relieved jaws for easier access, medium hard wire 0,6 mm, Cu 1,3 mm, 115mm, 68g



Tip cutter flush cut 45°, ideal for working on PCBs or cutting component leads, "Anti Overbite System" avoids blades overlapping, medium hard wire 0,6 mm, Cu 1,3 mm, 115mm, 68g



Flush cut, small tapered head for access even in confined areas, same as 582E but with safety lead service, medium hard wire 0,6 mm, Cu 1,3 mm, 115mm, 67g



Tip cutter flush cut 30° , cut easily DIL leads from the rear, cut pins on dense PCBs, medium hard wire 0,4 mm, Cu 1,0 mm, 115mm, 68g



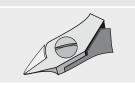
Tip cutter flush cut 45°, very small cutting head, for delicate work on hybrid circuits or micro modules, medium hard wire 0,2 mm, Cu 0,6 mm, 110mm, 67g

555E	
ESD SAFE	
572E	
ESD SAFE	
582E	
ESD SAFE	
582EW	
ESD SAFE	
593AE	
ESD SAFE	
575E	
ESD SAFE	



Tip Cutters - tapered and relieved head

Fine cutter head. One side is cut away for access even in confined areas.



Description

Side cutter flush cut, medium hard wire 0,4 mm, Cu 0,8 mm, 115mm, 67g

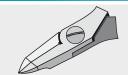


Side cutter super full flush cut, very sharp cut, medium hard wire 0,4 mm, Cu 0,6 mm, 115mm, 67g

Material N	lo. Shelf Pack	
592E		
ESD SAFE	1	
792E		
ESD SAFE		

Tip Cutters - straight, tapered and relieved head

Fine and narrow cutter head allows access in confined areas.s.



Tip cutter flush cut, horizontal for cutting at extreme tips, medium hard wire 0,4 mm, Cu 0,6 mm, 120mm, 67g



Tip Cutters - oval head for vertical tip cutting



Tip cutter flush cut, for soft wire, Cu 0,8 mm, 120mm, 67g





Cutters

Series 800 Maxi - high grade tool steel, ESD safe, resharpenable

The strongest and toughest series. Cut relatively large wire sizes.

	Micro	Medium	Maxi
b a			
	Series 600	Series 2400 Series 5 MagicSense	Series 800
Width a	9,0 mm	11,0 mm 11,0 mm	13,5 mm
Thickness b	6,0 mm	6,0 mm 6,5 mm	7,5 mm

Side Cutters - oval head

The most common cutting head for standard cutting applications.
The robust cutting head allows high cutting capability.



Description

Side cutter semi flush cut, robust head, medium hard wire 1,2 mm, hard wire 0,6 mm, Cu 1,8 mm, 120mm, 67g



Side cutter semi flush cut, for hard wire, Kovar wire, connector pins, medium hard wire 1,2 mm, hard wire 0,6 mm, Cu 1,8 mm, 120mm, 67g



Side cutter flush cut, medium hard wire 1,2 mm, Cu 1,8 mm, 120mm, 67g

812N	
ESD SAFE	
896E	
ESD SAFE	
822N	
ESD SAFE	

Shelf Pack

Material No.

Side Cutters - tapered head

Small tapered head for cutting application in dense working areas.



Side cutter flush cut, with robust, tapered head, medium hard wire, 1,0 mm, Cu 1,8 mm 120mm, 83g



Tip Cutters - tapered and relieved head

The smallest head shape. One side is cut away for access even in confined areas.



M

Side cutter flush cut, with robust, tapered head, medium hard wire 0,8 mm, Cu 1,6 mm, 120mm, 81g

884E		
~		
(
ESD SAFE		
202 ON E		



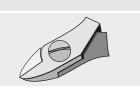
Cutters

Tungsten Hard Metal Cutters - high grade tool steel, ESD safe, resharpenable

High grade tool steel, Tungsten Carbide blades, for constant load. High precision side cutter for stainless and hard wires like Nickel plated wire and cored-wire electrode. Piano until 60 HRc.

Side Cutters - oval head

The most common cutting head for standard cutting applications. The robust cutting head allows high cutting capability.



Description

Flush cut, miniature side cutter, small head, piano wire 0,2 mm, medium hard wire 0,6 mm, hard wire 0,4 mm, Cu 1.2 mm



Semi flush cut, robust side cutter, Tungsten Carbide blades, for standard cutting applications, high cutting capability, piano wire 0,6 mm, medium hard wire 1,0 mm, hard wire 0,8 mm, Cu 1,5 mm, 115mm, 67g

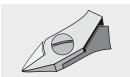


Flush cut, robust side cutter, Tungsten Carbide blades, for standard cutting applications, high cutting capability, piano wire 0,6 mm, medium hard wire 1,0 mm, hard wire 0,8 mm, Cu 1,5 mm, 115mm, 67g

Material No.	Shelf Pack	
622TX		
ESD SAFE		
599T		
ESD SAFE		
599TF		
ESD SAFE		

Side Cutters - tapered head

Small tapered head for cutting application in dense working areas.





Side cutter semi flush cut, Tungsten Carbide blades, piano wire 0,4 mm, medium hard wire 0,8 mm, hard wire 0,6 mm, Cu 1,5 mm, 115mm, 67g



Side cutter flush cut, Tungsten Carbide blades, piano wire 0,4 mm, medium hard wire 0,8 mm, hard wire 0,6 mm, Cu 1,5 mm, 115mm, 67g



Flush cut, small head allows very good access, fine tips, high precision side cutter (MagicSense) for piano wire 0,3 mm, medium hard wire 0,5 mm, hard wire 0,4 mm, Cu 1,0 mm



Flush cut, small head allows very good access, fine tips, high precision side cutter for piano wire 0,3 mm, medium hard wire 0,5 mm, hard wire 0,4 mm, Cu 1,0 mm

595T	
ESD SAFE	
595TF	
ESD SAFE	
2476TX1	
ESD SAFE	
576TX1	
ESD SAFE	



Shelf Pack

Tip Cutters - tapered and relieved head

The smallest head shape. One side is cut away for access even in confined areas



Flush cut, high precision tip cutter (MagicSense), very fine tips, piano wire 0,1 mm, medium hard wire 0,3 mm, hard wire 0,2 mm, Cu 1,0 mm

Description



Material No.

Flush cut, high precision tip cutter, Tungsten Carbide blades, very fine tips, piano wire 0,1 mm, medium hard wire 0,3 mm, hard wire 0,2 mm, Cu 1,0 mm, 115mm, 67g

ESD SAFI

576TX

Tip Cutters - angled, wide head

Angled head for precision, reach and operator visibility.



operator visibility.



Tip cutter semi flush cut 30°, Tungsten Carbide blades, wide and robust head but fine cut, piano wire 0,4 mm, medium hard wire 0,8 mm, hard wire 0,6 mm, Cu 1,2 mm, 110mm, 67g



Same as 503ET but flush cut, Tungsten Carbide blades, piano wire 0,4 mm, medium hard wire 0,8 mm, hard wire 0,6 mm, Cu 1,2 mm, 110mm, 67g

503ET

ESD SAFE

503ETF

Specials - Pneumatic side & tip cutters

High grade tool steel, ESD safe.



Side cutter semi flush cut, compound action, Cu 1,8 mm, 120mm, 100g



Side cutter flush cut, for PCB separation only, 115mm, 79g



Miniature side cutter super full flush cut, ergonomical line, designed for soft materials like small Silicone tubinge, miniature rubber gaskets or cutting of molded soft synthetic parts, 110mm, 48g



Side cutter for Kevlar silks only, 115mm, 67g



Side cutter semi flush cut, high grade tool steel, Tungsten Carbide blades, for cutting fibre optics, Kevlar, vectran braided wires or small stainless wires, 115mm, 67g

147A	
ESD SAFE	
884EPCM	
ESD SAFE	
632NCF	
ESD SAFE	
599FO	
ESD SAFE	
599TFO	
ESD SAFE	



Pneumatic Side + Tip Cutters



Pneumatic cutter housing

Description

130mm, 130g

Material No. Shelf Pack

1500BSF

Cutting Heads for 1500BSF Side Cutters

Oval Head





Cutting head semi flush cut, high grade tool steel, max. Cu 1,6 mm $\,$

1512N ESD SAFE





Cutting head flush cut, high grade tool steel, max. Cu 1,6 mm

1522N



Tapered Head





Cutting head flush cut, high grade tool steel, max. Cu 1,4 mm

1522NA



Relieved Head





Cutting head flush cut, high grade tool steel, max. Cu 1,2 mm $\,$

1522NB



Tip Cutters





Cutting head flush cut 30°, high grade tool steel, max. Cu 1,2 mm $\,$

1503E







Distance Cutters

Distance Outlers			
	Description	Material No.	Shelf Pack
- high grade tool steel, ESD Fixed Cutting Height (= F)	safe		
Ti Sen	Distance cutter, flush cut, F = 0,6 mm, max. Cu 1,2 mm, 120mm, 67g	530E06 ESD SAFE	
	Distance cutter, flush cut, F = 0,8 mm, max. Cu 1,2 mm, 120mm, 67g	530E08	
	Distance cutter, flush cut, F = 1,0 mm, max. Cu 1,2 mm, 120mm, 67g	530E10 ESD SAFE	
	Distance cutter, flush cut, F = 1,2 mm, max. Cu 1,2 mm, 120mm, 67g	530E12 ESD SAFE	
	Distance cutter, flush cut, F = 1,3 mm, max. Cu 1,2 mm, 120mm, 67g	530E13 ESD SAFE	
	Distance cutter, flush cut, F = 1,5 mm, max. Cu 1,2 mm, 120mm, 67g	530E15 ESD SAFE	
	Distance cutter, flush cut, F = 1,8mm, max. Cu 1,2 mm, 120mm, 67g	530E18 ESD SAFE	
	Distance cutter, flush cut, F = 2,0 mm, max. Cu 1,2 mm, 120mm, 67g	530E20 ESD SAFE	

Distance Cutters

Distance Cutters			
	Description	Material No.	Shelf Pack
- high grade tool steel, ESD : Fixed Cutting Height (= F), and	safe ngled 45°		
TON	Distance cutter, flush cut, F = 1,5 mm, max. Cu 1,2 mm 120mm, 67g	549E ESD SAFE	
	Distance cutter, flush cut, F = 1,0 mm, max. Cu 1,2 mm, 120mm, 67g	549E10 ESD SAFE	
	Distance cutter, flush cut, F = 1,2 mm, max. Cu 1,2 mm, 120mm, 67g	549E12 ESD SAFE	



Distance Cutters

	Description	Material No.	Shelf Pack	
- high grade tool steel, ESD s Adjustable Cutting Height (=	safe V)			
Tah	Distance cutter, flush cut, V = 1,2 to 6 mm, max. Cu 1,2 mm, 120mm, 70g	530E15A ESD SAFE		
To h	Distance cutter, plastic anvil, flush cut, V = 0 to 5 mm, max. Cu 0,8 mm, 115mm, 70g	573EB		

Pliers

	Description	Material No.	Shelf Pack
- high grade tool steel, anti- finish, ESD safe	glare		
Jon	Round nose pliers, with smooth jaws, very precise, 120mm, 67g	543E ESD SAFE	
Jan	Needle nose plier, with smooth rounded jaws, very precise, 120mm, 67g	547 ESD SAFE	
NG II	Flat nose plier, with smooth jaws, precise radiused edges, 120mm, 67g	542E ESD SAFE	
- Ch	Flat nose plier, Nylon inserts to prevent nicking 125mm, 67g	531E ESD SAFE	
- And	Chain nose plier, with smooth jaws, 120mm, 67g	544E ESD SAFE	
- Can	Chain nose plier, with smooth jaws, inside serrated, 125mm, 67g	544D ESD SAFE	



Pliers Series 2400 MagicSense

	Description	Material No.	Shelf Pack
- high grade tool steel, anti-ç finish, ESD safe	jlare		
	Needle nose pliers with smooth rounded jaws, very precise, 146mm	2411P ESD SAFE	
	Needle nose pliers, same as 2411P, but inside serrated tips, 146mm	2411PD ESD SAFE	
	Flat nose pliers with smooth jaws, precise radiused edges, 146mm	2442P ESD SAFE	
	Round nose pliers with smooth jaws, very precise, for bending wires, 146mm	2443P ESD SAFE	

EROP Side Cutters



Tip Cutters





EROP Pliers Description Material No. Shelf Pack EROP172 Round nose plier, burnished, ESD safe, 125mm, 63g Needle nose plier, burnished, ESD safe, EROP174 120mm, 66g Needle nose plier, burnished, ESD safe, EROP277 140mm, 90g Needle nose plier, burnished, ESD safe, EROP280 170mm, 113g EROP170 Flat nose plier, burnished, ESD safe, 120mm, 63g EROP171 Flat nose plier, burnished, ESD safe, 120mm, 67g

Stripping Tools

Front Stripping - high grade tool steel, ESD safe



Front stripping tool, adjustable AWG 30-18 (0,25-1,02 mm), 120mm, 75g



Front stripping tool, high precision, adjustable AWG 42-24 (0,06-0,60 mm), 120mm, 80g

Side Stripping - high grade tool steel, ESD safe



Side stripping tool, high precision, adjustable AWG 42-24 (0,06-0,60 mm), 120mm, 80g

510AE	
ESD SAFE	
552E	
ESD SAFE	
552S	
ESD SAFE	



Pre-Forming Tools				
	Description		Material No.	Shelf Pack
For Passive Components - h anti-glare finish, ESD safe	igh grade tool steel,			
ACK.	Pre-forming tool, u-shape max. 65 mm, capacitors 0,7 mm, resistors 1/2 W, 120mm, 70g	R 2	554E ESD SAFE	
Ch	Pre-forming tool, u-shape transverse, max. 65 mm, head width 4 mm, 120mm, 70g	4 max.	554A ESD SAFE	
	Pre-forming tool, double u-shape simultaneously, max. 65 mm, head width 2,5 mm, 120mm, 70g	R 1.2	554TX ESD SAFE	
NO. PS	Pre-forming tool, cut and bent max. 65 mm, 120mm, 70g	3- R = 1.5 Min. 4	50788 ESD SAFE	
- CA	Pre-forming tool, cut and bent max. 65mm, 120mm, 70g	1 - 2,5 T- 1 - 2	50789Z ESD SAFE	
For Active Components - hig anti-glare finish, ESD safe	gh grade tool steel,			
P.Ch	Pre-forming tool, bend 3-12 mm, 120mm, 85g	K	500103A ESD SAFE	
and the second	Pre-forming tool, cut and bent 3,8-15 mm, 120mm, 85g	K	500210E ESD SAFE	
	Pre-forming tool for 3 leads, 3,5-15 mm, 120mm, 85g	I K M	500104A ESD SAFE	
For Flat Packs, Quads - high grade tool steel, ESD safe				
20/1	Pre-forming tool, cut and bent, mex. 13 mm, 120mm, 100g	M Marian	80013C ESD SAFE	
For DIL / IC - high grade tool	steel, ESD safe			
26h	Pre-forming tool, cut and bent, up to 20 pins, 120mm, 98g	Cities Cooper	8091C	



IC + SMD Tools

IC + SMD Tools			
	Description	Material No.	Shelf Pack
Inserting and Extracting - hi	gh grade tool steel, ESD safe		
	Inserting and extracting pliers, 14-16 pins, 20 mm, adjustable, 120mm, width .300	505C ESD SAFE	
	Inserting and extracting pliers, 28 pins, 36 mm, adjustable, 120mm, width .300	505BGC ESD SAFE	
	Inserting and extracting pliers, 28 pins, 36 mm, adjustable, 120mm, width .600	505BG ESD SAFE	
Cutting - high grade tool ste	el, anti-glare finish, ESD safe		
	High precision tip cutter for cutting leads up to 0,25 mm, 110mm, 48g	670EP ESD SAFE	
	High precision tip cutter bent, cuts leads from the rear, medium hard wire 0,4 mm, Cu 1,0 mm, 115mm, 67g	593AE	

Fibre Optic Tools/Kits

Side Stripping - high grade tool steel, anti-glare finish, ESD safe



Side stripping tool, high precision, adjustable AWG 42-30 120mm, 80g

Cutting - high grade tool steel, ESD safe



Side cutter for Kevlar silks only. 115mm, 67g



Side cutter semi flush cut, Tungsten Carbide blades, for cutting fibre optics, Kevlar and small stainless wires, 115mm, 67g

Holding / Gripping



Precision tweezers with PPS tips, special stainless steel, non magnetic, 120mm, 20g

552S	
ESD SAFE	
599FO	
599TFO	





Kit for SMD handling



Description	Material No.	Shelf Pack	
Kit for SMD handling consists of: 51SA precision tweezers 102ACA SMD tweezers 103ACA SMD tweezers 150SAMB SMD tweezers 150SAMF SMD tweezers 670EP tip cutter	3900KC		

Premium Universal Tool Set - 11 Piece



Premium Universal Tool Set - 11 Pce - Contains XP600 (6pce set), 2412E, 2442P, 622NB, AASA, 2ASASL

- 11 piece tool kit in an ESD-safe plastic case, 2 cutters, 1 plier, 2 tweezers, 6 screwdrivers
- High quality precision tweezers, cutters and screwdrivers, non reflecting surface, resharpenable
- Internal Erem Magic Spring provides constant spring force, guarantees more than 1 million operations
- High precision screw joint with smooth jaw action with no play, smooth cutting operation with no jaw overlapping
- Maximum opening stop allows the limited extent to which the handles can open prevent user hand fatigue
- For use in electronics assembly, the watch making industry, medicine
- Precision screwdriver with hardened, durable Tips, for precision working in confined areas
- Set contains the following:

 $\ensuremath{\mathsf{XP600}}$ - Precision screwdriver set for electronics - 4 Regular and 2 Philips

2412E - Ergo, oval head, semi flush cutters

 $2442\mbox{P}$ - Ergo flat nose plier w/- precision-machined smooth jaws

622NB - Miniature tip cutter, flush, relieved, long fine head, for medium hardness $0.6 mm \ Cu. \ 0.8 mm$

AASA - Precision tweezers, pointed tips, straight, special stainless steel, non magnetic

2ASASL - Precision tweezers w/- flat rounded tips, tip widths 2mm/.078", special stainless steel, non magnetic

J	660	U	N	J

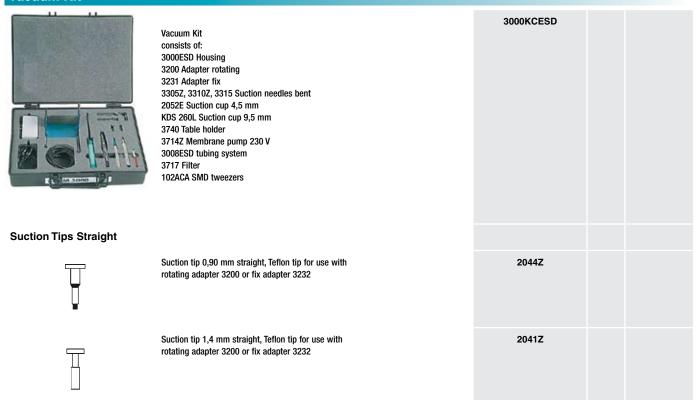
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Vacuum Manipulator

	Description	Material No.	Shelf Pack	
Housing				
88	Housing	3000ESD		
Inserts for Housing 3000ESD				
	Adapter 360° rotating, straight nozzle	3200		
	Adapter fix for use with suction tips series 3300	3231		
	Adapter fix for use with suction cup 2052E	3232		

Vacuum Kit





	Description	Material No.	Shelf Pack
Suction Needles			
	Suction needle bent 45°, 0,16 mm, stainless steel, for use with fix adapter 3231	3303	
	Suction needle bent 45°, 0,25 mm, stainless steel, for use with fix adapter 3231	3305Z	
	Suction needle bent 45°, 0,65 mm, stainless steel, for use with fix adapter 3231	3310Z	

Vacuum Manipulator Suction Cups



Suction cup \emptyset 4,5 mm, Silicone rubber, for use with rotating adapter 3200 or fix adapter 3232

2052E

Accessories

Membrane pumb 230 V, 5I/min, max. vacuum -250 mbar (NOT FOR USE WITH 3000WESD)	3714Z	
Tubing system flexible, 1,8 m, ESD safe	3008ESD	
Table holder for 3000ESD or 3000WESD w/o accessory	3740	



Exploded Drawing 1500 BSF

