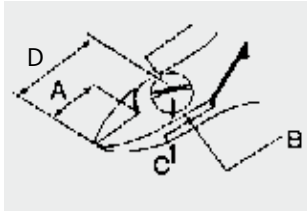


## Series 500 Medium



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
<b>512N</b>	 Semi-flush	12 .472	11 .433	6.5 .256	19 .748	0.5 .019	1.0 .039	1.6 .062
<b>512E</b>	 Semi-flush	12 .472	11 .433	6.5 .256	19 .748	Model same as 512N, but with burnished head		
<b>522N</b>	 Flush	12 .472	11 .433	6.5 .256	19 .748	—	1.0 .039	1.6 .062
<b>599E</b>	 Flush	10 .472	11 .433	6.5 .256	17 .669	—	1.0 .039	1.6 .062
						Short, robust head		
<b>532N</b>	 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	

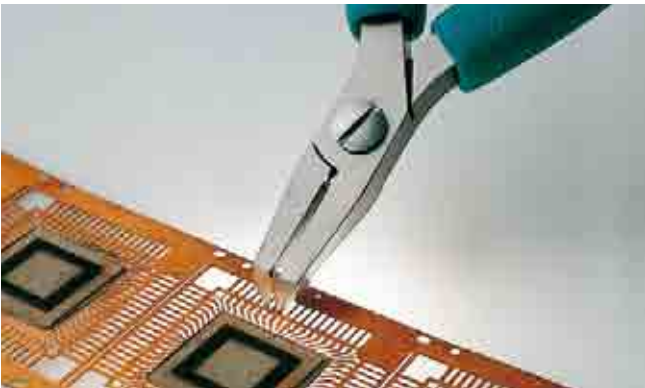
### Tip cutter – angled wide head



 **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

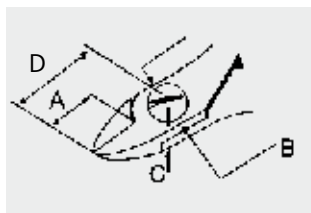
# Side Cutters and Tip Cutters

## 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
						Suitable for cutting hard wires, Kovar, connector pins		
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
<b>886E</b>	 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
<b>884E</b>	 Flush	15	13.5	7.5	21	0.8	1.6
		.590	.531	.295	.827	.031	.062

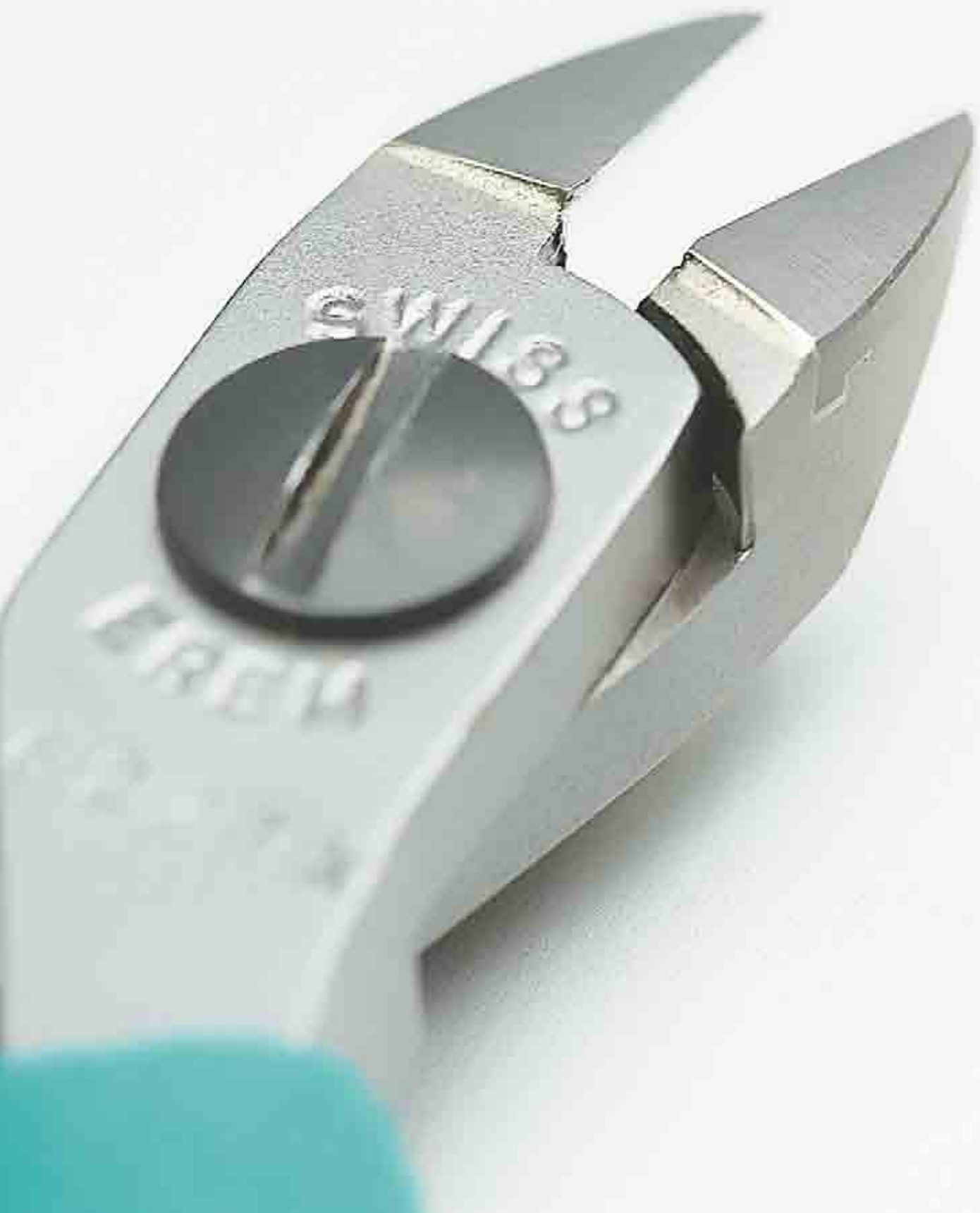
## Series 800 Maxi



# Side Cutters and Tip Cutters

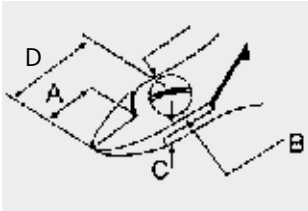
## Tungsten-carbide cutters

- 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





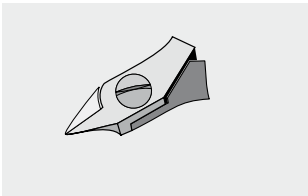
Tungsten-carbide cutters



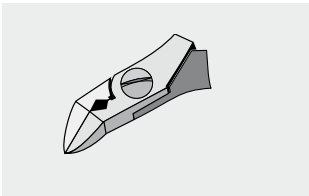
A = length of cutting edges  
B = head width  
C = head thickness  
D = head length



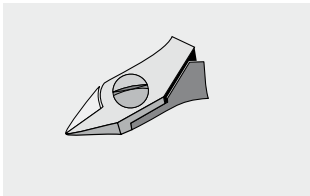
**Tip cutter**  
Pointed  
relieved head



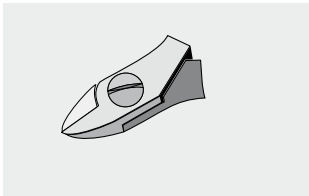
**Tip cutter**  
Angled  
wide head



**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		8	9	6	15	0.2	0.4	0.6	1.2
	Flush	.315	.354	.236	.590	.007	.015	.023	.047
					Miniature cutter				
599T		12	11	6.5	19	0.6	0.8	1.0	1.5
	Semi-flush	.472	.433	.256	.748	.023	.031	.039	.059
599TF		12	11	6.5	19	0.6	0.8	1.0	1.5
	Flush	.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



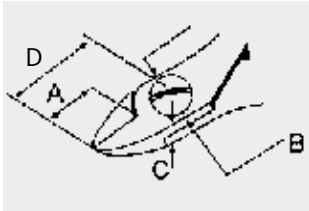
**110 mm/4.331 Inch**  
**67 g/2.36 oz.**  
**30°**

- 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
<b>503ET</b>	 Semi-flush	9	11	6.5	19	0.4	0.6	0.8	1.2
		.354	.433	.256	.748	.015	.023	.031	.047
<b>503ETF</b>	 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.

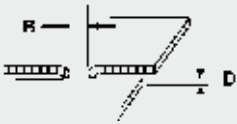
Model	Cut	Dimensions in mm/Inch			Max. cutting capability in mm/Inch Diameter	
		A	B	C	Copper wire	
147A	 Semi-flush	12 .472	10.5 .413	7.5 .295	1.8 .070	For cutting hard wires with minimal effort
147AT	 Semi-flush	12 .472	10.5 .413	7.5 .295	1.8 .070	Model same as 147A, but with cutting edges made from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



\*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
<b>632NCF</b>	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
<b>599FO</b>	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
<b>599TFO</b>	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

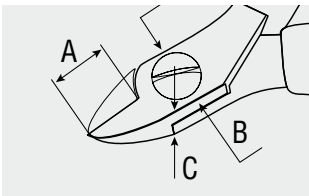


 **130 mm/5.118 Inch**  
 **130 g/4.59 oz.**

- 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	
<b>1522NA</b>	 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	
<b>1522NB</b>	 Flush	9 .354	10.5 .413	6.5 .256	1.2 .047

### Tip cutter – angled head



 **38 g/1.34 oz.**  
 **30°**

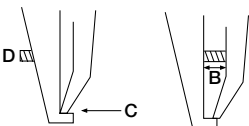
- The angled head provides for precise cuts at different working angles.

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

# Side Cutters and Tip Cutters

## Distance cutters

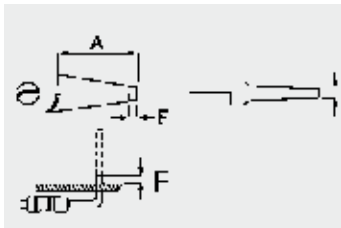
- Erem distance cutters are available with fixed and variable cutting lengths
- The tips are polished so as to prevent board damage
- For cutting wires to the right length and for fixing components



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	
<b>530E06**</b>	 Flush	20 .787	3 .118	0.6 .023	1.2 .047	Cuts copper wire to a length of 0.6 mm/.023 Inch
<b>530E08</b>	 Flush	20 .787	3 .118	0.8 .031	1.2 .047	Cuts copper wire to a length of 0.8 mm/.031 Inch
<b>530E10</b>	 Flush	20 .787	3 .118	1.0 .039	1.2 .047	Cuts copper wire to a length of 1.0 mm/.039 Inch
<b>530E12*</b>	 Flush	20 .787	3 .118	1.2 .047	1.2 .047	Cuts copper wire to a length of 1.2 mm/.047 Inch
<b>530E13*</b>	 Flush	20 .787	3 .118	1.3 .051	1.2 .047	Cuts copper wire to a length of 1.3 mm/.051 Inc
<b>530E15</b>	 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	
<b>530E18*</b>	 Flush	20 .787	3 .118	1.8 .070	1.2 .047	Cuts copper wire to a length of 1.8 mm/.070 Inc
<b>530E20*</b>	 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	
<b>549E</b>	 Flush	20 .787	3 .118	1.5 .059	1.2 .047	Cuts wire to a length of 1.5 mm/.059 Inch
<b>549E10*</b>	 Flush	20 .787	3 .118	1.0 .039	1.2 .047	Cuts wire to a length of 1.0 mm/.039 Inch
<b>549E12*</b>	 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	
<b>530E15A*</b>	 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	
<b>573EB</b>	 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

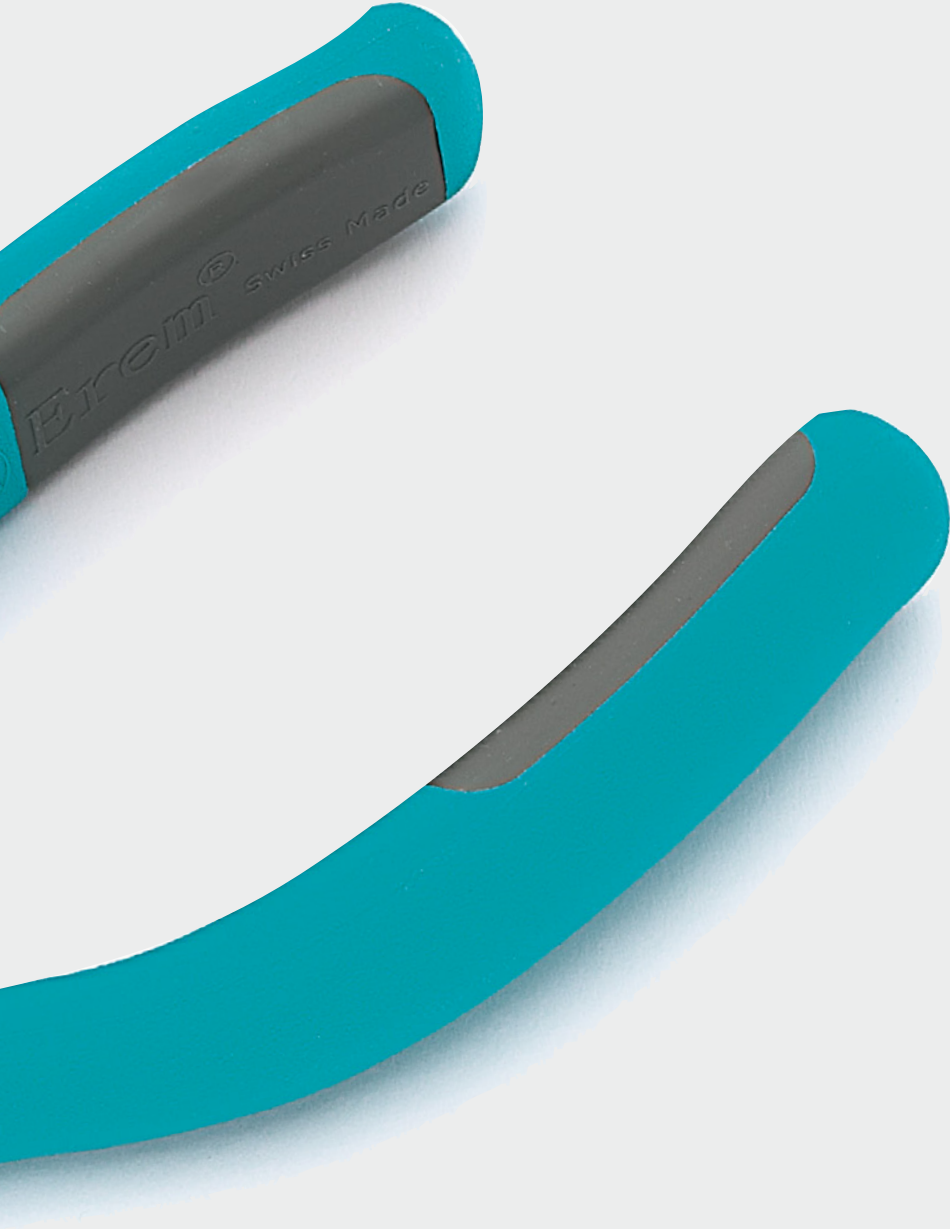
\*Not available in North America

# 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

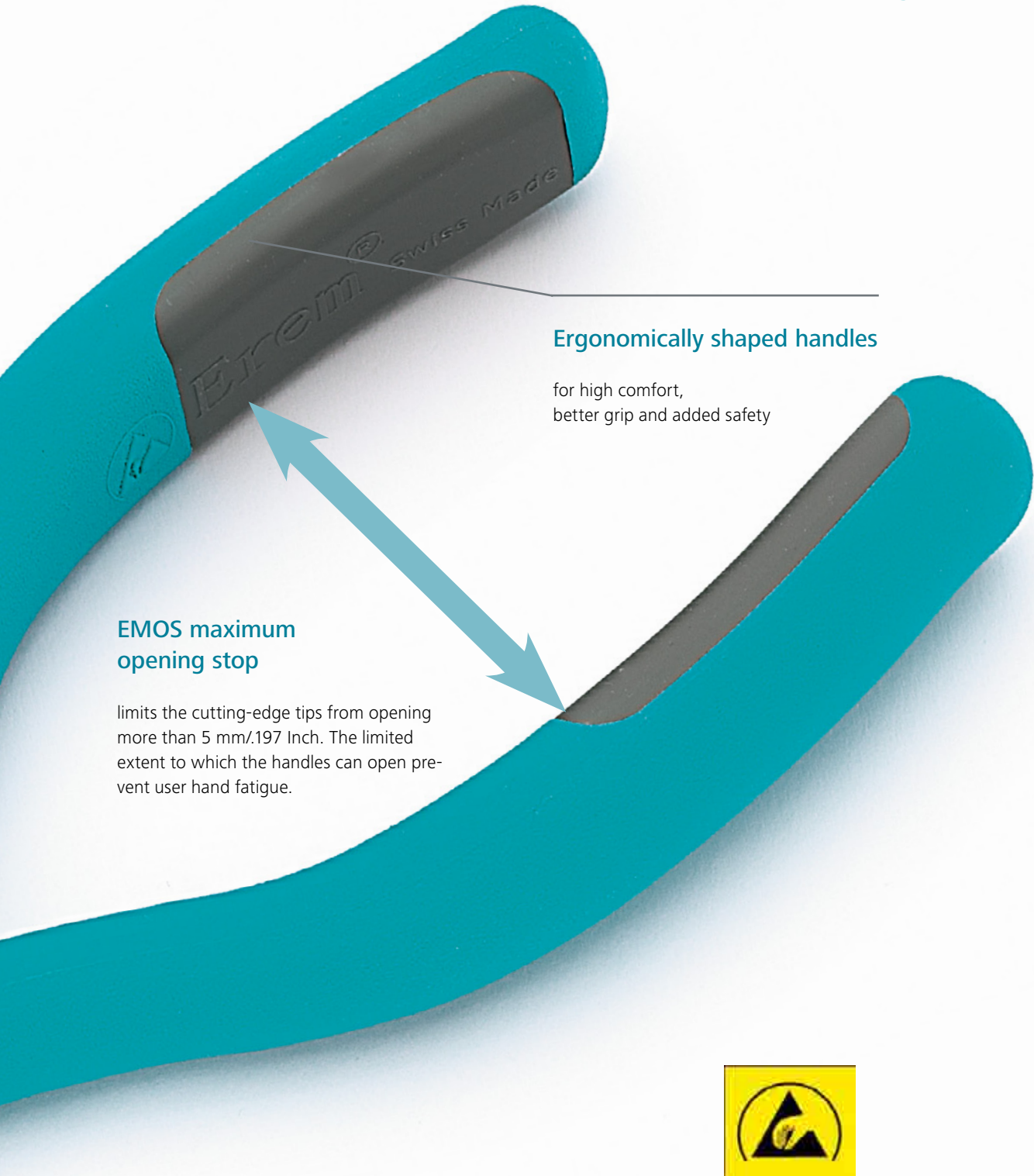
- lange Lebensdauer
- Constant spring force
- Guarantees more than 1 million operations

### 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

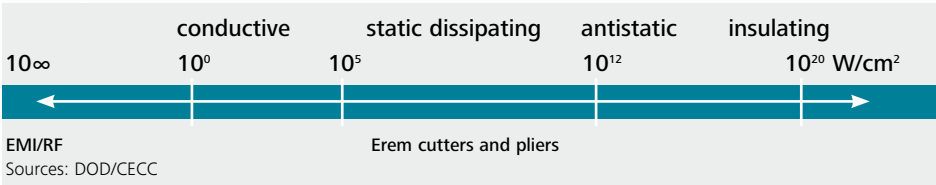
EMOS maximum  
opening stop

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



ESD-safe

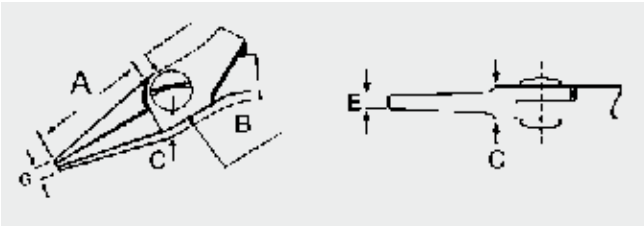
The interchangeable foam-cushion handles  
are ESD-safe and are fitted as standard on all  
Erem cutters and pliers.



# 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 ø	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 .905	9 .354	6.5 .256	2.4 .094	1.4 .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 .905	9 .354	6.5 .256	5 .197	3 .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 .905	9 .354	6.5 .256	1 .039	1.4 .055

\*Order as 544 in North America



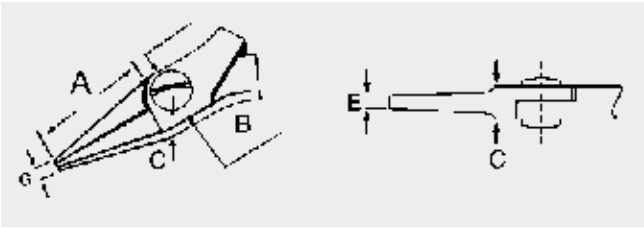
 **120 mm/4.724 Inch**  
 **67 g/2.36 oz.**

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

Inside-serrated jaws for secure handling

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 ø	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

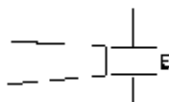
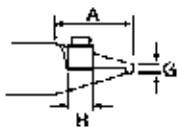


### Front stripping



 **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

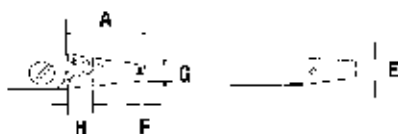
## High precision stripping pliers

### 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

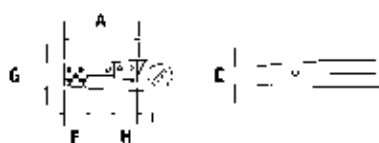
Model	Dimensions in mm/Inch					Wire diameter
	A	E	F	G	H	
<b>552E</b>	23 .905	6.5 .256	1 .039	11 .433	9 .354	0.06 mm – 0.6 mm (AWG 42 – 24) .002 Inch – .023 Inch

### 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	
<b>552S</b>	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

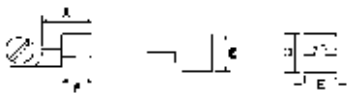
## Forming pliers for passive components

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

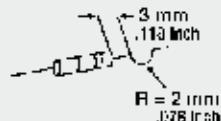


 **120 mm/4.724 Inch**  
 **70 g/2.47 oz.**

- Suitable for component connections, U-shape.





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

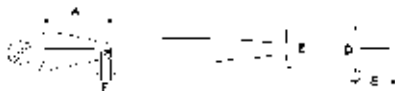
Model		Dimensions in mm/Inch				Max. connection diameter		
		A	D	E	F	Diodes	Capacitors	Resistors
554E*		13 .512	10 .394	10 .394	10 .394	0.65 mm .025 Inch	0.7 mm .027 Inch	1/2 W

\*Order as 554 in North America

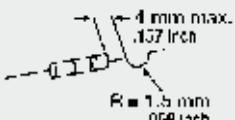


 **120 mm/4.724 Inch**  
 **70 g/2.47 oz.**

- 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

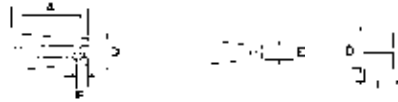
Model		Dimensions in mm/Inch				Max. connection diameter		
		A	D	E	F	Diodes	Capacitors	Resistors
554A		23	5.6	2.5	4.5	0.65 mm	0.7 mm	1/2 W
		.905	.220	.098	.177	.025 Inch	.027 Inch	

## 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		
		A	D	E	F	Diodes	Capacitors	Resistors
554TX		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.



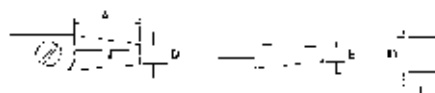
A = jaw length  
D = height of tips  
E = width of tips  
F = length of forming tool

Model		Dimensions in mm/Inch				Max. connection diameter		
		A	D	E	F	Diodes	Capacitors	Resistors
50788		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		
		A	D	E	F	Diodes	Capacitors	Resistors
50789Z		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

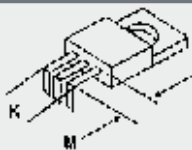
- Safe bending, forming and preparation of component connections, specially for integrated components and power transistors
- High grade tool steel
- Non-reflecting surface
- ESD-safe





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

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

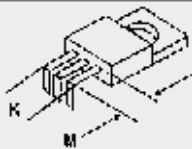
Model	Dimensions in mm/Inch	
	K max.	M
<b>500103A*</b>	15 .590	3 – 12 .118 – .472



 **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
<b>500210E</b>	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.

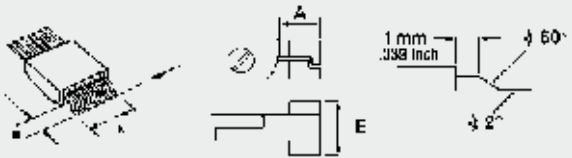
Model		Dimensions in mm/Inch		
		K max.	M	I
<b>500104A</b>		13	3.5 – 15	2.54
		.512	.138 – .590	.100

## 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
<b>80013C</b>		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
<b>809IC</b>		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

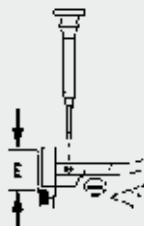




- IC and SMD tools for inserting, extracting, straightening and cutting IC and SMD components
- Non-reflecting surface
- ESD-safer



Inserting and extracting





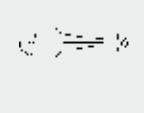
 **120 mm/4.724 Inch**    ■ One screwdriver included for fine adjustments.

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

Straightening



 **130 mm/5.118 Inch**    ■ Practical straightening tool, suitable for straightening contacts, DIL/IC connections.  
 **120 g/4.24 oz.**    ■ Up to 16 connections possible.

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



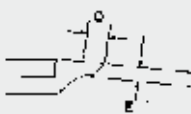
## IC and SMD tools

### Cutting



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


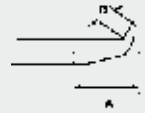
- High-precision tip cutter.
- For connections of SMD micro-packages up to 0.25 mm/.010 Inch, also for pitches smaller than 1/20".
- For  $\mu$  pitches below 0.5 mm/.019 Inch, you will need the 670EPF model.
- Please send component when ordering.

Model	Cut	Dimensions in mm/Inch		
		A	D	E
670EP	 Flush  	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	 Flush 	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
<b>3900KC</b>	Kit for SMD work
<b>contents:</b>	
<b>51SA</b>	Precision tweezers with very pointed tips, bent 30°, relieved; length 115 mm/4.527 Inch
<b>102ACA</b>	SMD tweezers with angled tips and blunted edges, suitable for vertical working with small components; length 115 mm/4.527 Inch
<b>103ACA</b>	SMD tweezers with angled tips and blunted edges for vertical working with small components; length 115 mm/4.527 Inch
<b>150SAMB</b>	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
<b>150SAMF</b>	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
<b>670EP</b>	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

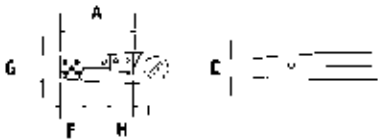


### Side stripping



 **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.



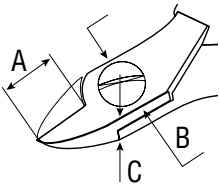
High precision tools for optical fibres

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

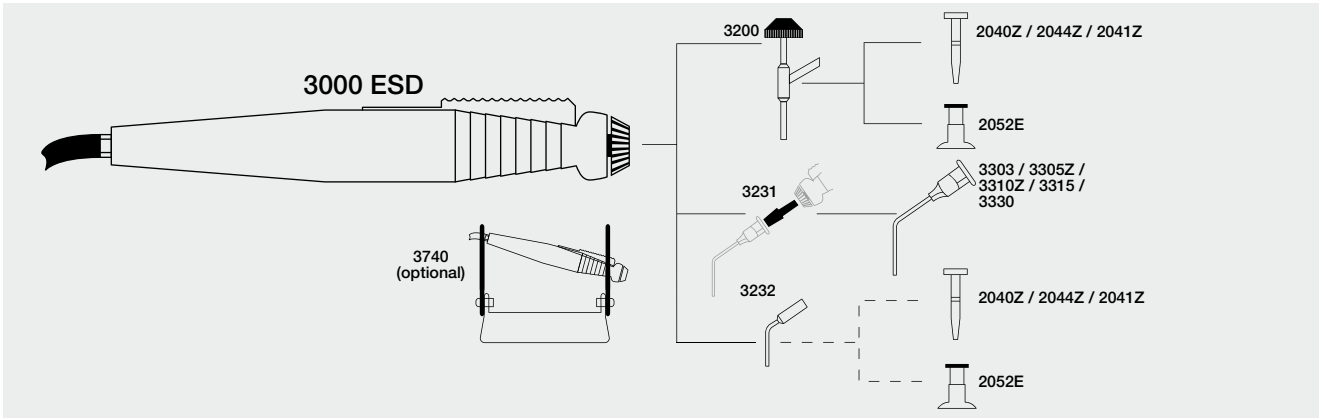
## Vacuum micromanipulator

- 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	
<b>3000ESD*</b>	Dia. 10 mm .394 Inch	Handle

\*Not available in North America



## Inserts for 3000ESD housing

### Adapters

Model				Description
<b>3200*</b>		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
<b>3231*</b>		5 mm .197 Inch	5 g 0.17 oz.	Adapter fix, for working with Series 3300 suction tips
<b>3232*</b>		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
<b>2044Z*</b>		1.3 mm .051 Inch	0.9 mm .035 Inch
<b>2041Z*</b>		2.0 mm .078 Inch	1.4 mm .015 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
<b>3714Z*</b>	Diaphragm pump 230 V, 5 l/min, max. vacuum –250 mbar
<b>3008ESD*</b>	Tube, flexible, 1.8 m/70.866 Inch, ESD-safe
<b>3717*</b>	Filter for tube 3008ESD
<b>3740*</b>	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
<b>3000KCESD*</b>	Vacuum kit
	<b>contents:</b>
<b>3000ESD</b>	Handle
<b>3200</b>	Adapter, rotatable through 360°
<b>3231</b>	Adapter fix
<b>3305Z, 3310Z, 3315</b>	Suction needles
<b>2052E</b>	Suction cup, dia. 4.5 mm / .177 Inch
<b>KDS 260L</b>	Suction cup, dia. 9.5 mm / .374 Inch
<b>3740</b>	Table holder
<b>3714Z</b>	Diaphragm pump 230 V
<b>3008ESD</b>	Tube, flexible
<b>3717</b>	Filter
<b>102ACA</b>	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

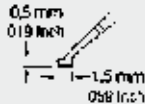
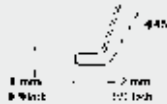
\*Not available in North America

## 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

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.

Modell	Beschreibung	
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

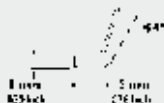
\*Not available in North America

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

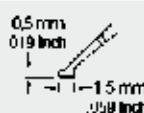
\*Not available in North America

## 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	<div></div> 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

## Swiss high precision tools in a kit

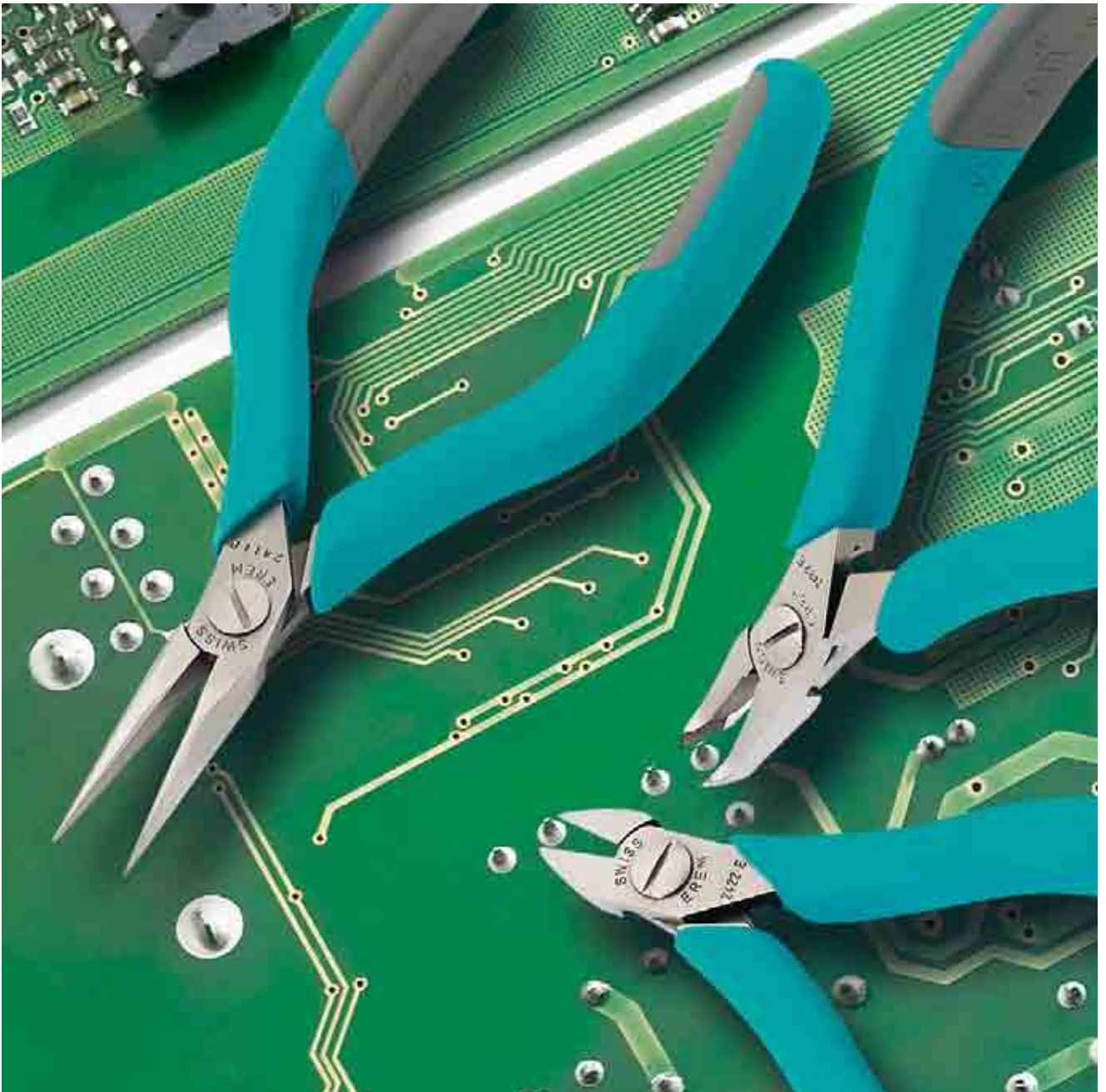
### Vacuum kit



- 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



## Knives, Shearcutters, Screwdriver, Kits





# Knives & Blades

## Knives



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

## Blades for XN100



Order No.	Description	Pack quantity
<b>XNB101</b>	Blade, Standard	5
<b>XNB103</b> <b>XNB103B</b>	Blade, Fine pointed Blade, Fine pointed	5 100
<b>XNB105</b>	Blade, Stencil	5

## Blades for XN200 and XN210



Order No.	Description	Pack quantity
<b>XNB201</b>	Blade, Chisel	5
<b>XNB203</b>	Blade, General purpose	5
<b>XNB205</b>	Blade, Pointed	5

## Shearcutter – general purpose

■ Cutting copper wire to 0,8 mm diameter



Order No.	Description	Size	
		Inch	mm
<b>170M</b>	Shearcutter, red handles	5	127
<b>175M</b>	Shearcutter with safety clips, red handles	5	127

## Sheet metal Snip



Order No.	Description	Size	
		Inch	mm
<b>86NCG</b>	Snip, electronic	6 1/2	165

## Wire Stripper & Cutters



Order No.	Description	Size	
		Inch	mm
<b>100XV</b>	Wire Stripper & Cutter, adjustable	5	127
<b>101SNV</b>	Wire Stripper & Cutter, spring-opening	5	127

# Screwdriver & Nutdriver Sets

## Mini Screwdriver Set with Slotted/Phillips Screwdrivers



Order No.	Description
M60	Mini Screwdriver Set with Slotted/Phillips Screwdrivers (7 pcs.)

## Offset Ratches Screwdriver Set



Order No.	Description
XL75	Offset Ratches Screwdriver Set

## Screwdriver Set for slotted Screws – Inch Size



Order No.	Description	Length		Colour
		Inch	mm	
<b>PS88</b>	<b>Screwdriver Set for Slotted Screws – Inch Size</b>			
consists of:				
P3321*	Screwdriver, Midget 3/32" (2,38 mm)	3 1/2	89	green
P181*	Screwdriver, Midget 1/8" (3,18 mm)	3 1/2	89	red
P5321*	Screwdriver, Midget 5/32" (3,97 mm)	3 1/2	89	black
P3161*	Screwdriver, Midget 3/16" (4,76 mm)	3 1/2	89	orange
P141	Screwdriver, Midget 1/8" (3,18 mm)	3 1/2	89	amber
P0*	Screwdriver, Philips Nr. 0	3 1/2	89	blue
P1*	Screwdriver, Philips Nr. 1	3 1/2	89	brown
P2*	Screwdriver, Philips Nr. 2	3 1/2	89	amber
TA2*	Torque amplifier handle			black

## Screwdriver Set for Hex Socket Screws – Inch Size



Order No.	Description	Length		
		Inch	mm	
<b>PS89</b>	<b>Screwdriver Set for Hex Socket Screws – Inch Size</b>			
consists of:				
P18*	Screwdriver, Midget, Hex, 0,028" (0,71 mm)	3 1/2	89	
P19*	Screwdriver, Midget, Hex, 0,035" (0,89 mm)	3 1/2	89	
P20*	Screwdriver, Midget, Hex, 0,050" (1,27 mm)	3 1/2	89	
P21*	Screwdriver, Midget, Hex, 1/16" (1,59 mm)	3 1/2	89	
P22*	Screwdriver, Midget, Hex, 5/64" (1,98 mm)	3 1/2	89	
P23*	Screwdriver, Midget, Hex, 3/32" (2,38 mm)	3 1/2	89	
P764*	Screwdriver, Midget, Hex, 7/64" (2,78 mm)	3 1/2	89	
P24*	Screwdriver, Midget, Hex, 1/8" (3,18 mm)	3 1/2	89	
TA2*	Torque amplifier handle, black			

\*Discontinued

# Screwdriver & Nutdriver Sets

## Compact Convertible Hex Socket Screwdriver Set – Metric Size



Order No.	Description	Length	
		Inch	mm
<b>PS90MM</b>	<b>Compact Convertible Hex Socket Screwdriver Set – Metric Size</b>		
consists of:			
P71*	Screwdriver, Midget, Hex, 1,27 mm	3 1/2	89
P72*	Screwdriver, Midget, Hex, 1,5 mm	3 1/2	89
P73*	Screwdriver, Midget, Hex, 0,89 mm	3 1/2	89
P74*	Screwdriver, Midget, Hex, 2,5 mm	3 1/2	89
P75*	Screwdriver, Midget, Hex, 3 mm	3 1/2	89
P76*	Screwdriver, Midget, Hex, 4 mm	3 1/2	89
P77*	Screwdriver, Midget, Hex, 5 mm	3 1/2	89
P78*	Screwdriver, Midget, Hex, 0,89 mm	3 1/2	89
TA2*	Torque amplifier handle, black		

## Nutdriver Set – Inch Sizes



Order No.	Description	Length		Colour
		Inch	mm	
<b>PS120</b>	<b>Nutdriver Set – Inch Size</b>			
consists of:				
P3*	Nutdriver, Midget, 3/32" (2,38 mm)	3 1/2	89	blue
P4*	Nutdriver, Midget, 1/18" (3,18 mm)	3 1/2	89	red
P5*	Nutdriver, Midget, 5/32" (3,97 mm)	3 1/2	89	amber
P6*	Nutdriver, Midget, 3/16" (4,76 mm)	3 1/2	89	black
P7*	Nutdriver, Midget, 7/32" (5,56 mm)	3 1/2	89	brown
P8*	Nutdriver, Midget, 1/4" (6,35 mm)	3 1/2	89	red
P9*	Nutdriver, Midget, 9/32" (7,14 mm)	3 1/2	89	orange
P10*	Nutdriver, Midget, 5/16" (7,94 mm)	3 1/2	89	amber
P11*	Nutdriver, Midget, 11/32" (8,73 mm)	3 1/2	89	green
P12*	Nutdriver, Midget, 3/8" (9,53 mm)	3 1/2	89	blue
TA2*	Torque amplifier handle			black

\*Discontinued

## Compact Convertible Nutdriver Set – Metric Sizes



Order No.	Description	Length	
		Inch	mm
<b>PS121MM</b>	<b>Compact Convertible Nutdriver Set – Metric Size</b>		
consists of:			
P3MM*	Nutdriver, Midget, 3 mm (0,118")	3 1/2	89
P35MM*	Nutdriver, Midget, 3,5 mm (0,138")	3 1/2	89
P4MM*	Nutdriver, Midget, 4 mm (0,157")	3 1/2	89
P45MM*	Nutdriver, Midget, 4,5 mm (0,177")	3 1/2	89
P5MM*	Nutdriver, Midget, 5 mm (0,197")	3 1/2	89
P55MM*	Nutdriver, Midget, 5,5 mm (0,217")	3 1/2	89
P6MM*	Nutdriver, Midget, 6 mm (0,236")	3 1/2	89
P7MM*	Nutdriver, Midget, 7 mm (0,276")	3 1/2	89
P8MM	Nutdriver, Midget, 8 mm (0,315")	3 1/2	89
P10MM	Nutdriver, Midget, 10 mm (0,394")	3 1/2	89
TA2*	Torque amplifier handle, black		

## Series 99 Service Kits & Sets



Order No.	Description
<b>99MP</b>	<b>Multi-purpose Tool Kit, Roll Kit</b>
consists of:	
991X	Regular Handle
994	T-Handle
99X5	Extension, 4"
99820	Blade, Screwdriver, Phillips No. 0
99821	Blade, Screwdriver, Phillips No. 1
99822	Blade, Screwdriver, Phillips No. 2
996	Blade, Nutdriver, 3/16"
997	Blade, Nutdriver, 7/32"
998	Blade, Nutdriver, 1/4"
998M	Blade, Nutdriver, magnetic, 1/4"
999	Blade, Nutdriver, 9/32"
9910	Blade, Nutdriver, 5/16"
9911	Blade, Nutdriver, 11/32"
9912	Blade, Nutdriver, 3/8"
9914	Blade, Nutdriver, 7/16"
9916	Blade, Nutdriver, 1/2"
9920	Blade, Screwdriver, Allen Hex Type, 0,050"
9921	Blade, Screwdriver, Allen Hex Type, 1/16"
9922	Blade, Screwdriver, Allen Hex Type, 5/64"
9923	Blade, Screwdriver, Allen Hex Type, 3/32"
99764	Blade, Screwdriver, Allen Hex Type, 7/64"
9924	Blade, Screwdriver, Allen Hex Type, 1/8"
99964	Blade, Screwdriver, Allen Hex Type, 9/64"
9925	Blade, Screwdriver, Allen Hex Type, 5/32"
9926	Blade, Screwdriver, Allen Hex Type, 3/16"
9961	Blade, Bristol 6-flute Multiple Spline, 0,048"
9962	Blade, Bristol 6-flute Multiple Spline, 0,060"
9963	Blade, Bristol 4-flute Multiple Spline, 0,069"
9964	Blade, Bristol 6-flute Multiple Spline, 0,072"
9965	Blade, Bristol 4-flute Multiple Spline, 0,076"
9966	Blade, Bristol 6-flute Multiple Spline, 0,096"
9967	Blade, Bristol 6-flute Multiple Spline, 0,111"
9968	Blade, Bristol 6-flute Multiple Spline, 0,145"
9969	Blade, Bristol 6-flute Multiple Spline, 0,183"
99125	Blade, Screwdriver, Slotted, 1/8"
99811	Blade, Screwdriver, Slotted, 3/16"
99250	Blade, Screwdriver, Slotted, 1/4"
99312	Blade, Screwdriver, Slotted, 5/16"
9938	Reamer, 1/8" x 3/8"



Order No.	Description
<b>99SPC</b>	<b>Personal Computer Repair Kit</b>
consists of:	
E1	IC-Inserter
X1	IC-Extractor
T1	Tweezer
R1	Gripping Tool
99820	Blade, Screwdriver, Phillips No. 0
99821	Blade, Screwdriver, Phillips No. 1
9910XTD	Torx Blade No. 10
9915XTD	Torx Blade No. 15
996	Blade, Nutdriver, 3/16"
998	Blade, Nutdriver, 1/4"
99811	Blade, Screwdriver, Slotted, 3/16"



Order No.	Description
<b>99PS40</b>	<b>Allen Hex Type Screwdriver Set – Inch Size</b>
consists of:	
991X	Regular Handle
99X5	Extension 4"
9920	Blade, Screwdriver, Allen Hex Type, 0,050"
9921	Blade, Screwdriver, Allen Hex Type, 1/16"
9922	Blade, Screwdriver, Allen Hex Type, 5/64"
9923	Blade, Screwdriver, Allen Hex Type, 3/32"
99764	Blade, Screwdriver, Allen Hex Type, 7/64"
9924	Blade, Screwdriver, Allen Hex Type, 1/8"
99964	Blade, Screwdriver, Allen Hex Type, 9/64"
9925	Blade, Screwdriver, Allen Hex Type, 5/32"
9926	Blade, Screwdriver, Allen Hex Type, 3/16"

## Series 99 Service Kits & Sets



Order No.	Description
<b>99PS41MM</b>	<b>Allen Hex Type Screwdriver Set – Metric Size</b>
consists of:	
991X	Regular Handle
99X5	Extension 4"
9971MM	Blade, Screwdriver, Allen Hex Type, 1,27 mm
9972MM	Blade, Screwdriver, Allen Hex Type, 1,5 mm
9973MM	Blade, Screwdriver, Allen Hex Type, 2 mm
9974MM	Blade, Screwdriver, Allen Hex Type, 2,5 mm
9975MM	Blade, Screwdriver, Allen Hex Type, 3 mm
9976MM	Blade, Screwdriver, Allen Hex Type, 4 mm
9977MM	Blade, Screwdriver, Allen Hex Type, 5 mm



Order No.	Description
<b>99PS40BP</b>	<b>Innensechskant-Screwdriversatz mit Kugelspitzen – Zollabmessung</b>
consists of:	
991X	Faustgriff
99X5	Verlängerung, 102 mm
9920BP	Innensechskant-Screwdriver mit Kugelspitze, 0,05"
9921BP	Innensechskant-Screwdriver mit Kugelspitze, 1/16"
9922BP	Innensechskant-Screwdriver mit Kugelspitze, 5/64"
9923BP	Innensechskant-Screwdriver mit Kugelspitze, 3/32"
99764BP	Innensechskant-Screwdriver mit Kugelspitze, 7/64"
9924BP	Innensechskant-Screwdriver mit Kugelspitze, 1/8"
99964BP	Innensechskant-Screwdriver mit Kugelspitze, 9/64"
9925BP	Innensechskant-Screwdriver mit Kugelspitze, 5/32"
9926BP	Innensechskant-Screwdriver mit Kugelspitze, 3/16"



Order No.	Description
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## 99PS41MMBP Ballpoint Allen Hex Socket Type Screwdriver Set – Metric Size

consists of:

991X	Regular Handle
99X5	Extension 4"
9971MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 1,27 mm
9972MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 1,5 mm
9973MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 2 mm
9974MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 2,5 mm
9975MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 3 mm
9976MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 4 mm
9977MMBP	Blade, Screwdriver, Allen Hex Type, Ballpoint, 5 mm



Order No.	Description
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## 99PS50 Screwdriver & Nutdriver Set

consists of:

991X	Regular Handle
99X5	Extension 4"
99821	Blade, Screwdriver, Phillips No. 0
99822	Blade, Screwdriver, Phillips No. 1
996	Blade, Nutdriver, 3/16"
997	Blade, Nutdriver, 7/32"
998	Blade, Nutdriver, 1/4"
999	Blade, Nutdriver, 9/32"
9910	Blade, Nutdriver, 5/16"
9911	Blade, Nutdriver, 11/32"
9912	Blade, Nutdriver, 3/8"
99811	Blade, Screwdriver, Slotted, 3/16"
99250	Blade, Screwdriver, Slotted, 1/4"

## Series 99 Service Kits & Sets



Order No.	Description
<b>99PS51MM</b>	<b>Interchangeable Shank, Nutdriver Set – Metric Size</b>
consists of:	
991X	Regular Handle
99X5	Extension 4"
994MM	Blade, Nutdriver, 4 mm
9945MM	Blade, Nutdriver, 4,5 mm
995MM	Blade, Nutdriver, 5 mm
9955MM	Blade, Nutdriver, 5,5 mm
996MM	Blade, Nutdriver, 6 mm
997MM	Blade, Nutdriver, 7 mm
998MM	Blade, Nutdriver, 8 mm
999MM	Blade, Nutdriver, 9 mm
9910MM	Blade, Nutdriver, 10 mm
9911MM	Blade, Nutdriver, 11 mm



Order No.	Description
<b>99PS60</b>	<b>Bristol Multiple Spline Socket Screwdriver Set</b>
consists of:	
991X	Regular Handle
99X5	Extension 4"
9961	Blade, Bristol 6-flute Multiple Spline, 0,048"
9962	Blade, Bristol 6-flute Multiple Spline, 0,060"
9963	Blade, Bristol 4-flute Multiple Spline, 0,069"
9964	Blade, Bristol 6-flute Multiple Spline, 0,072"
9965	Blade, Bristol 4-flute Multiple Spline, 0,076"
9966	Blade, Bristol 6-flute Multiple Spline, 0,096"
9967	Blade, Bristol 6-flute Multiple Spline, 0,111"
9968	Blade, Bristol 6-flute Multiple Spline, 0,145"
9969	Blade, Bristol 6-flute Multiple Spline, 0,183"



Order No.	Description
<b>99XTD7</b>	<b>Torx Screwdriver Tool Set</b>
consists of:	
991X	Regular Handle
9910XTD	Torx Blade No. 10
9915XTD	Torx Blade No. 15
9920XTD	Torx Blade No. 20
9925XTD	Torx Blade No. 25
9927XTD	Torx Blade No. 27
9930XTD	Torx Blade No. 30

## Single Tools for Service Kits and Set

Order No.	Description
99831	Screwdriver, Pozidriv No. 1
99832	Screwdriver, Pozidriv No. 2
996XTD	Torx Blade No. 6
998XTD	Torx Blade No. 8

# Tool Cases



Final appearance may vary

Order No.	Description
<b>T0044130000</b>	<b>TCE150ST Tool Case synthetic material with special tools out of Apex Tools product lines – Metric Size</b>
consists of:	
991X	Regular Handle
994R	T-Ratching Handle
99X5	Extension 4"
9971MM	Blade, Screwdriver, Allen Hex, 1,27 mm
9972MM	Blade, Screwdriver, Allen Hex, 1,5 mm
9973MM	Blade, Screwdriver, Allen Hex, 2 mm
9974MM	Blade, Screwdriver, Allen Hex, 2,5 mm
9975MM	Blade, Screwdriver, Allen Hex, 3 mm
9976MM	Blade, Screwdriver, Allen Hex, 4 mm
9977MM	Blade, Screwdriver, Allen Hex, 5 mm
994MM	Blade, Nutdriver, 4 mm
9945MM	Blade, Nutdriver, 4,5 mm
995MM	Blade, Nutdriver, 5 mm
9955MM	Blade, Nutdriver, 5,5 mm
996MM	Blade, Nutdriver, 6 mm
997MM	Blade, Nutdriver, 7 mm
998MM	Blade, Nutdriver, 8 mm
999MM	Blade, Nutdriver, 9 mm
99820	Blade, Screwdriver, Phillips No.0
99821	Blade, Screwdriver, Phillips No.1
99822	Blade, Screwdriver, Phillips No.2
99811	Blade, Screwdriver, Slotted, 3/16"

Order No.	Description
99250	Blade, Screwdriver, Slotted, 1/4"
99312	Blade, Screwdriver Slotted, 5/16"
9938	Reamer, 1/8" x 3/8"
Erop330	Tip Cutter, 130 mm, 40°
542E	Flat Nose Plier
543E	Round Nose Plier
2211P	Needle Nose Plier
170M	Shearcutter, red handles
812N	Side Cutter
612N	Side Cutter
86CG	Snip electronic
SX101	Phillips Screwdriver, Stubby No.1
SX102	Phillips Screwdriver, Stubby No.2
XST101	Phillips Screwdriver, Super-tru-tip No.1
0056103699	Soldering Iron W61, 60W
0051304199	DS7N Desoldering head for W 61
XL75	Offset Ratches, Screwdriver Set
103S	Wire Stripper & Cutter, Cam Stop Adjustable
0016100402	Hand File Cut 2, 100 mm
AC16C	Wrench, 150 mm
0054002599	RL 60/40 - 100 solder
0060403504	Y35CM Ultralock, Measuring Tape 5 m



## Order No. Description

### TC100ST Tool Case with USA Standard Assortment – Inch Size

consists of:

991X	Regular Handle
991R	Ratching Handle
994R	T-Ratching Handle
99X5	Extension 4"
99X10	Extension 7"
9961	Blade, Bristol 6-flute Multiple Spline, 0,048"
9962	Blade, Bristol 6-flute Multiple Spline, 0,060"
9963	Blade, Bristol 4-flute Multiple Spline, 0,069"
9964	Blade, Bristol 6-flute Multiple Spline, 0,072"
9965	Blade, Bristol 4-flute Multiple Spline, 0,076"
9966	Blade, Bristol 6-flute Multiple Spline, 0,096"
9967	Blade, Bristol 6-flute Multiple Spline, 0,111"
9968	Blade, Bristol 6-flute Multiple Spline, 0,145"
9969	Blade, Bristol 6-flute Multiple Spline, 0,183"
9920	Blade, Screwdriver, Allen Hex Type, 0,050"
9921	Blade, Screwdriver, Allen Hex Type, 1/16"
9922	Blade, Screwdriver, Allen Hex Type, 5/64"
9923	Blade, Screwdriver, Allen Hex Type, 3/32"
99764	Blade, Screwdriver, Allen Hex Type, 7/64"
9924	Blade, Screwdriver, Allen Hex Type, 1/8"
99964	Blade, Screwdriver, Allen Hex Type, 9/64"
9925	Blade, Screwdriver, Allen Hex Type, 5/32"
9926	Blade, Screwdriver, Allen Hex Type, 3/16"
99125	Blade, Screwdriver, Slotted, 1/8"
99811	Blade, Screwdriver, Slotted, 3/16"
99250	Blade, Screwdriver, Slotted, 1/4"
99312	Blade, Screwdriver, Slotted, 5/16"
99820	Blade, Screwdriver, Phillips No.0
99821	Blade, Screwdriver, Phillips No.1
99822	Blade, Screwdriver, Phillips No.2
9938	Reamer, 1/8" x 3/8"
42H	Seizer, Straight Nose, Serrated jaw
46CG	Wrench, adjustable, 6"
50CG	Plier, adjustable, 6"
51CG	Plier, Long Nose, 7"
53CG	Plier, adjustable, 4"
54CG	Plier, diagonal, 4"
66CG	Plier, diagonal, 6"

## Order No. Description

57CG	Plier, Needle Nose, 16"
59CG	Plier, Special Purpose, 8"
86CG	Electronic Snip, cushion grip, 6,5"
103S	Wire Stripper & Cutter, Cam Stop Adjustable
M60	Mini Screwdriver Set (7 pcs.)
XL75	Offset Ratches, Screwdriver Set
600	4-way Pocket Tool Screwdriver/Nutdriver
SB1	Convertible Blade
R3323	Screwdriver, Round Blade, Pocket Clip Style, 3/32" x 3"
R181	Screwdriver, Round Blade, Pocket Clip Style, 1/8" x 2"
R184	Screwdriver, Round Blade, Regular, 1/8" x 2"
R3164	Screwdriver, Round Blade, Regular, 3/16" x 4"
R3166	Screwdriver, Round Blade, Regular, 3/16" x 6"
R144	Screwdriver, Round Blade, Regular, 1/4" x 4"
R146	Screwdriver, Round Blade, Regular, 1/4" x 6"
SX101	Screwdriver, Phillips, Stubby No.1
XST100	Screwdriver, Phillips, Super-tru-tip No.0
XST101	Screwdriver, Phillips, Super-tru-tip No.1
XST102	Screwdriver, Phillips, Super-tru-tip No.2
S3161	Screwdriver, Square Blade, Stubby, 3/8"
S5161	Screwdriver, Square Blade, Stubby, 5/16"
S388	Screwdriver, Square Blade, Regular, 3/8"
S5166	Screwdriver, Square Blade, Regular, 5/16"
P18	Screwdriver, Allen Hex Type, 0,028"
P19	Screwdriver, Allen Hex Type, 0,035"
HS6	Nutdriver, Hollow, 3/16"
HS8	Nutdriver, Hollow, 1/4"
HS10	Nutdriver, Hollow, 5/16"
HS11	Nutdriver, Hollow, 11/32"
HS12	Nutdriver, Hollow, 3/8"
HS14	Nutdriver, Hollow, 7/16"
HS16	Nutdriver, Hollow, 1/2"
HS18	Nutdriver, Hollow, 9/16"
998M	Blade, Nutdriver, 1/4", magnetic
9910M	Blade, Nutdriver, 5/16", magnetic
PS120	Nutdriver Set

# Tool Cases



## Order No. Description

### TCMB100ST Tool Case with Tools – Inch Size

consists of:

991X	Regular Handle
991R	Ratching Handle
994R	T-Ratching Handle
99X5	Extension 4"
99X10	Extension 7"
9961	Blade, Bristol 6-flute Multiple Spline, 0,048"
9962	Blade, Bristol 6-flute Multiple Spline, 0,060"
9963	Blade, Bristol 4-flute Multiple Spline, 0,069"
9964	Blade, Bristol 6-flute Multiple Spline, 0,072"
9965	Blade, Bristol 4-flute Multiple Spline, 0,076"
9966	Blade, Bristol 6-flute Multiple Spline, 0,096"
9967	Blade, Bristol 6-flute Multiple Spline, 0,111"
9968	Blade, Bristol 6-flute Multiple Spline, 0,145"
9969	Blade, Bristol 6-flute Multiple Spline, 0,183"
9920	Blade, Screwdriver, Allen Hex Type, 0,050"
9921	Blade, Screwdriver, Allen Hex Type, 1/16"
9922	Blade, Screwdriver, Allen Hex Type, 5/64"
9923	Blade, Screwdriver, Allen Hex Type, 3/32"
99764	Blade, Screwdriver, Allen Hex Type, 7/64"
9924	Blade, Screwdriver, Allen Hex Type, 1/8"
99964	Blade, Screwdriver, Allen Hex Type, 9/64"
9925	Blade, Screwdriver, Allen Hex Type, 5/32"
9926	Blade, Screwdriver, Allen Hex Type, 3/16"
99125	Blade, Screwdriver, Slotted, 1/8"
99811	Blade, Screwdriver, Slotted, 3/16"
99250	Blade, Screwdriver, Slotted, 1/4"
99312	Blade, Screwdriver, Slotted, 5/16"
99820	Blade, Screwdriver, Phillips No.0
99821	Blade, Screwdriver, Phillips No.1
99822	Blade, Screwdriver, Phillips No.2
9938	Reamer 1/8" x 3/8"
42H	Seizer, Straight Nose, Serrated jaw
46CG	Wrench, adjustable, 6"
50CG	Plier, adjustable, 6"
51CG	Plier, Long Nose, 7"
53CG	Plier, adjustable, 4"
54CG	Plier, diagonal, 4"
66CG	Plier, diagonal, 6"
57CG	Plier, Needle-Nose, 16"

## Order No. Description

59CG	Plier, Special Purpose, 8"
86CG	Electronic Snip, cushion grip, 6,5"
103S	Wire Stripper & Cutter, Cam Stop Adjustable
K22	Electricians' knife
M60	Mini Screwdriver Set (7 pcs.)
XL75	Offset Ratches, Screwdriver Set
600	4-way Pocket Tool Screwdriver/Nutdriver
SB1	Convertible Blade
R3323	Screwdriver, Round Blade, Pocket Clip Style, 3/32" x 3"
R181	Screwdriver, Round Blade, Pocket Clip Style, 1/8" x 2"
R184	Screwdriver, Round Blade, Regular, 1/8" x 2"
R5325	Screwdriver, Round Blade, Regular, 5/32"
R3164	Screwdriver, Round Blade, Regular, 3/16" x 4"
R3166	Screwdriver, Round Blade, Regular, 3/16" x 6"
R144	Screwdriver, Round Blade, Regular, 1/4" x 4"
R146	Screwdriver, Round Blade, Regular, 1/4" x 6"
SX101	Screwdriver, Phillips, Stubby No.1
XST100	Screwdriver, Phillips, Super-tru-tip No.0
XST101	Screwdriver, Phillips, Super-tru-tip No.1
XST102	Screwdriver, Phillips, Super-tru-tip No.2
S3161	Screwdriver, Square Blade, Stubby, 3/8"
S5161	Screwdriver, Square Blade, Stubby, 5/16"
S388	Screwdriver, Square Blade, Regular, 3/8"
S5166	Screwdriver, Square Blade, Regular, 5/16"
P18	Screwdriver, Allen Hex Type, 0,028"
P19	Screwdriver, Allen Hex Type, 0,035"
HS6	Nutdriver, Hollow, 3/16"
HS8	Nutdriver, Hollow, 1/4"
HS10	Nutdriver, Hollow, 5/16"
HS11	Nutdriver, Hollow, 11/32"
HS12	Nutdriver, Hollow, 3/8"
HS14	Nutdriver, Hollow, 7/16"
HS16	Nutdriver, Hollow, 1/2"
HS18	Nutdriver, Hollow, 9/16"
998M	Blade, Nutdriver, 1/4", magnetic
9910M	Blade, Nutdriver, 5/16", magnetic
PS120	Nutdriver Set

## Offset Ratchet Screwdriver Set



Order No.	Description
<b>XL70</b>	<b>Offset Ratchet Screwdriver Set</b>
consists of:	
XL3	Allen Hex Screw Bit 0,050" (1,27 mm)
XL4	Allen Hex Screw Bit 1/16" (1,54 mm)
XL5	Allen Hex Screw Bit 5/64" (1,98 mm)
XL6	Allen Hex Screw Bit 3/32" (2,38 mm)
XL7	Allen Hex Screw Bit 7/64" (1,54 mm)
XL8	Allen Hex Screw Bit 1/8" (3,17 mm)
XL9	Allen Hex Screw Bit 9/64" (3,57 mm)
XL10	Allen Hex Screw Bit 5/32" (3,97 mm)
XL12	Allen Hex Screw Bit 3/16" (4,76 mm)
XL14	Allen Hex Screw Bit 7/32" (5,56 mm)
XL16	Allen Hex Screw Bit 1/4" (6 mm)
XL17	Slotted Screw Bit 1/4" (6 mm)
XL18	Allen Hex Screw Bit 5/16" (7,94 mm)
XL20	Phillips Screw Bit No. 1
XL21	Phillips Screw Bit No. 2
XL24	Adapter bit
XL25	Slotted Screw Bit 3/16" (4,76 mm)
XL27	Offset Ratchet, reversible
XL50X	Screwdriver Extension

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