



Side Cutters and Tip Cutters


Series 800 Maxi

Side cutter – tapered head



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

- The jaws of the cutter have straight edges and taper to a point.
- This head shape allows access to difficult to reach areas but reduces the cutting capacity in comparison to the same size oval head cutter.

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



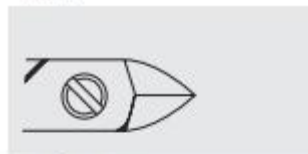
A = length of cutting edges
 B = head width
 C = head thickness
 D = head length



Flush

This cut leaves a much smaller tip at the end of the wire than the semi-flush cut – without reducing the cutting capacity. The cutting edges are finer than on semi-flush cutters. The effort exerted when cutting is less and the load on the component is reduced. Flush wire ends reduce the effort needed to fit components on printed-circuit boards. Erem guarantees precise cutting even after frequent use.

Maxi



Series 800

Tip cutter Pointed relieved head



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



Head width 13.5 mm/.531 Inch
 Head thickness 7.5 mm/.295 Inch

The strongest and most robust head size for general cutting applications in electronics, cuts large wire diameters.

Side cutter Tapered head



Choosing the right tool

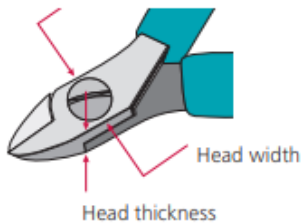
Selection criteria

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

When choosing the right cutter, it is important to take

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

Size



Erem offers the right head size to suit every application. There are three main sizes: **Micro, Medium and Maxi.**

Each head size is available in different head shapes.

Classification of cutter heads

Micro



Series 600



Size

Head width 9.0 mm/.354 Inch
Head thickness 6.0 mm/.236 Inch

Miniature cutter for applications in microelectronics and for fine wires. Offers a large variety of head shapes for very good access even to hard-to-reach areas.

Medium



Series 2400 MagicSense



Head width 11.0 mm/.433 Inch
Head thickness 6.0 mm/.236 Inch

Medium-size cutter. Combines robustness, visibility and accessibility. Large variety of head shapes for precision working in hard-to-reach areas. The Series 2400 MagicSense offers an optimised ergonomic shape and an improved grade of hardness.

Maxi



Series 800



Head width 13.5 mm/.531 Inch
Head thickness 7.5 mm/.295 Inch

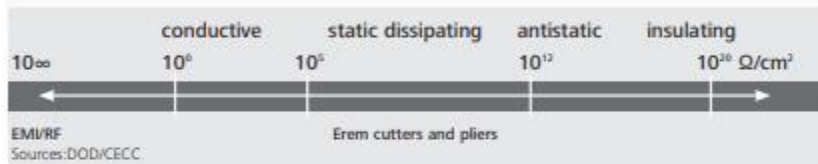
The strongest and most robust head size for general cutting applications in electronics, cuts large wire diameters.

Side Cutters and Tip Cutters



ESD-safe

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



Internal patented Erem Magic Spring

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

High precision screw joint

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

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





Ergonomically shaped handles

for high comfort,
better grip and added safety

EMOS maximum opening stop

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



Erem cutting-edge protection for tip cutters

All tip cutters are fitted with a special stop system which prevents the cutting edges from overlapping.



Safety device for holding wire scraps

This safety device for side cutters holds wire scraps securely after cutting. Available on most Series 500, 600 and 2400 cutters (oval head). Order suffix „W“, e.g. S95EW.

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

for exceptionally long life

Erem impresses

Erem Technology

Special tool steel

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

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



The internal patented Erem Magic Spring

The Magic Spring system used in Erem precision tools is unique. It is integral to the cutting head and provides a constant closing and re-opening force. It is guaranteed for 1 million operations.

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



High precision screw joint

This self locking screw joint system gives a smooth cutting and opening action and ensures that there is no blade overlap or play.

- + Precision cutting and reduced shock to components.

EMOS maximum opening stop

The unique EMOS (Erem Maximum Opening Stop) system prevents the tips from opening more than 5 mm/.197 Inch. It reduces user fatigue by preventing excessive hand spread.

- + Comfortable and fatigue free working.

Handle

Erem cutters and pliers with ergonomic handles

Work Related Upper Limb Disorder (WRULD) can be caused by positional fatigue or nerve damage brought about by the repeated use of non-ergonomic hand tools, otherwise known as **Repetitive Strain Injuries (RSI)**.

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

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

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



Erem Cut

Cut shape

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



1. Semi-flush



2. Flush



3. Super full flush

Cutting edge

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

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

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



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

Rockwell hardness

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

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

Erem Service

Re-sharpening

Erem is your service partner. All Erem side and tip cutters except those with carbide insert blades can be re-sharpened up to three times. Carriage charges will apply.

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

Replacement parts

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

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



ESD-safe

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

Choosing the right tool

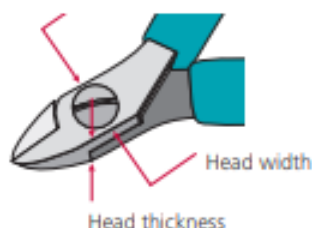
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- Size
 - Cut
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 - Cutting capacity
- into consideration.



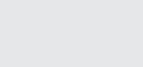





Size



Erem offers the right head size to suit every application. There are three main sizes: **Micro, Medium and Maxi.**

Each head size is available in different head shapes.

Classification of cutter heads

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

Cut

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



Semi-flush

This cut leaves a pyramidal tip at the end of the wire. It is particularly suitable for standard jobs where the final shape does not play a significant role. Cutters with this cut are suitable for both soft copper wires and very hard wires such as stainless steel.



Flush

This cut leaves a much smaller tip at the end of the wire than the semi-flush cut – without reducing the cutting capacity. The cutting edges are finer than on semi-flush cutters. The effort exerted when cutting is less and the load on the component is reduced. Flush wire ends reduce the effort needed to fit components on printed-circuit boards. Erem guarantees precise cutting even after frequent use.



Super full flush

Only Erem offers you a super full flush cut. This cut provides absolutely flush wire ends. No rework is needed. Cutters with this cut are absolutely precision-ground and sharpened. The effort exerted when cutting is low, as is the load on the component caused by the cut. Soldering tags in soldering-bath procedures are prevented. Cutters of this type are used in microelectronics, space travel or medical technology. These cutters are suitable for soft wires.







Erem cut Super
full flush: perfect
flush cut

Standard cut
„Super full flush“

Choosing the right tool

Head shape

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

Shape	Tip cutter Straight relieved head	Tip cutter Pointed relieved head	Tip cutter Angled narrow head
			
Visibility and accessibility Cutting at the outermost tip of the cutter			
	This head is suitable for horizontal and vertical cuts. The long tips facilitate cutting in hard-to-reach areas.	This is the narrowest head shape. The underside is relieved and facilitates optimum access even to extremely hard-to-reach areas.	The angled head provides for precise cuts at different working angles.
Series 600 Micro	670E*, 670EP*, 670EPF* (P. 265)	622NB, 632NCF, 676E, 776E (P. 264)	
Series 2400 MagicSense	2470E (P. 269)		2475E, 2482E (P. 269)
Series 500 Medium	570E, 573E** (P. 275)	592E, 792E (P. 274)	555E, 572E, 582E (P. 53) 575E, 593AE (P. 273)
Series 800 Maxi		884E (P. 278)	

* Very short head

** Straight head for vertical working



Erem cutting-edge protection for tip cutters

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