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**COOPER** Hand Tools

# 2400 MagicSense

The Erem 2400 MagicSense series will impress you with its:

**Erem Technology** 

**Erem Cut** 

**Erem MagicSense** 

**Erem Service** 

tools are the result of more than 30 years of development and know-how. Market developments inspire Erem to create forward looking, innovative products for a variety of applications in electronics, aviation, biology, medicine (micro surgery, operation accessories, dental engineering etc.), the watch industry or telecommunications.

in the field of electronic cutters and pliers.

The electronic cutters of the 2400 MagicSense series are the result of constant development in accord with our customers' requirements: which result in high quality craftsmanship, precision cutting and operator comfort, the optimum combination needed to meet the highest manufacturing requirements.

## **Internal patented Erem Magic Spring**

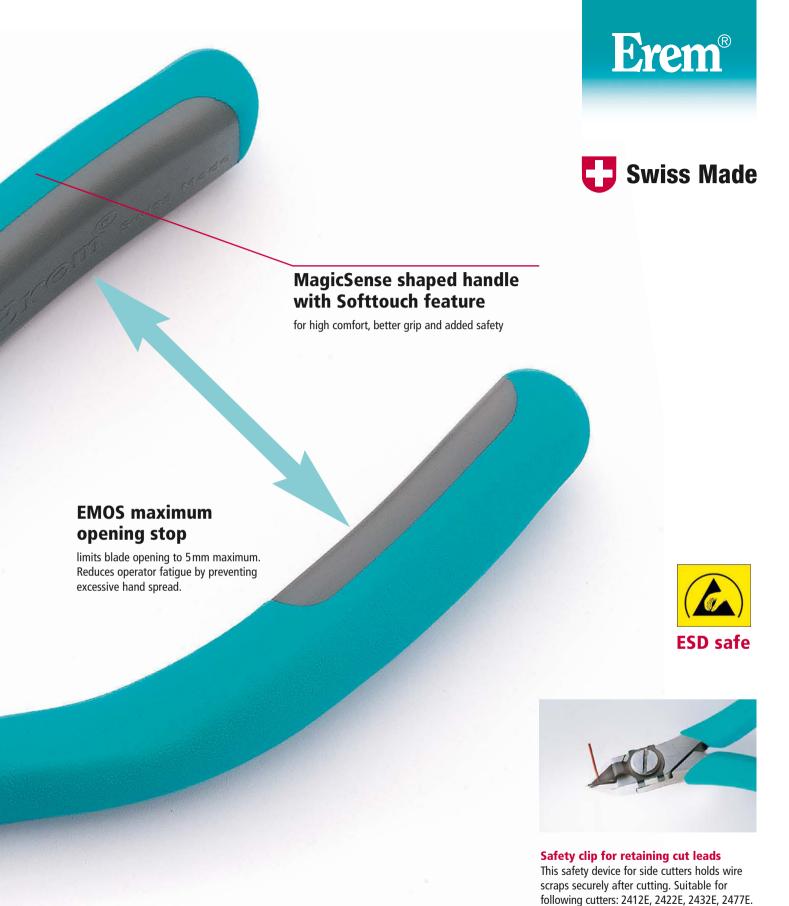
- constant spring force
- more than 1 million cutting cycles guaranteed

## **High Precision screw joint**

- smooth cutting action
- wobble free operation with no blade overlap

**Erem Cut: Special cutting** blade for achieving the desired cutting shape





Add suffix "W" e.g. 2412EW.

## Induction hardened blades in Rockwell hardness 63-65 HRC

for exceptionally long life



## **Erem Technology**

#### The steel

Erem electronic cutters are made from bright steel. They are not drop forged. The special tool steel is made using a unique Swiss processing technique.

#### Your advantage:

The high grade tool steel gives the tools additional strength and toughness.





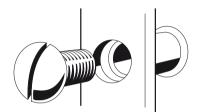


## The internal patented Erem Magic Spring

The Erem Magic Spring is unique, it is integral to the cutter head and provides a constant opening and closing force and is guaranteed for more than 1 million operations.

#### Your advantage:

The Magic Spring is reliable, makes the cutter easy to operate and reduces operator fatigue.



#### **Precision screw joint**

The precision screw joint ensures a smooth cutting action, without play or overlapping of the jaws and prevents the cutter head sticking when opening.

#### Your advantage:

Precise cutting, reduced shock to components.

#### **EMOS Maximum Opening Stop**

The unique EMOS Erem Maximum Opening Stop system limits the blade tips from opening more than 5 mm. Reduces operator fatigue by preventing excessive hand spread.

#### Your advantage:

Comfortable and fatigue free working.

### **Erem Cut**

#### **Cut options**

There are 3 cut options:



#### 1. Semi flush

For general cutting applications in which the shape of the cut is not important. Will cut both hard and soft wires equally well. Leaves a wedge shape on the cut leg of the component.



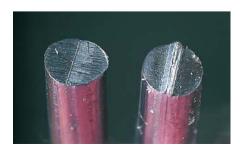
#### 2. Flush

Will cut both hard and soft wires. The blades are ground to shallower angle than those of semi flush cutters, this means that the cutting effort is reduced and the component is subjected to less shock. A much smaller wedge shape is left on the leg of the component. Used for general purpose cutting, or where greater precision is required.



#### 3. Super full flush

Erem super full flush cutters are precision ground and sharpened. This cut provides absolutely flush wire ends. No rework is needed. Less effort is required and the components are subjected to less shock load. This type of cut is suitable **only** for soft wires in microelectronics, aerospace and medical engineering applications.



Erem Cut super full flush: perfect flush cut

Regular "Super full flush" cut







## **Erem Service**

#### **Blade**

The Erem 2400 MagicSense series cutters are noted by their ease of use. This is because of the design of the blades, which can cut over the full length of the blade from heel to tip. This promotes operator comfort and reduces operator fatique.

#### **Rockwell Hardness**

The Erem 2400 MagicSense series blades are hardened to Rockwell 63–65 by an induction heating process. This level of hardening plus the high grade tool steel used in the manufacture of the tools and continuous process control ensure that Erem tools have an exceptionally long life.

**Ergonomically shaped handles** 

MagicSense

The handles of the Erem 2400 MagicSense are designed for maximum operator comfort and safety. The grip material has a soft touch but firm feel and has an anti-slip surface that is resistant to water, perspiration, oil and chemicals to ensure a secure hold. The ergonomic shape of the handle spreads the grip force over the palm of the hand and automatically positions the thumb and fingers in the most comfortable position. Worn handles can be replaced as necessary.

#### **Sharpening**

Erem offers a free of charge sharpening service on all cutters except those with a carbide insert blades, most cutters can be sharpened up to 3 times. You will be charged for carriage only.

#### Your advantage:

You receive back a fully reconditioned tool, reducing your tool costs.

#### **Replacement parts**

Erem cutters and pliers and their component parts come with a warranty against manufacturing defects. The Magic Springs and precision joint components are available as spare parts.





**ESD** safe

## Side cutters and pliers

#### Side cutter, oval head





2412E	Side cutter, oval head, semi flush cut
	Side cutter with robust head for general use. High cutting capacity.

Dimensi	ons in mm				Cutting capacity in mm
L	Α	В	C	D	CU
130	12	11	6	19,2	max. 1,6

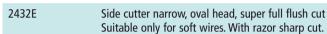


2422E Side cutter, oval head, flush cut

Side cutter with robust head for general use. For soft and thin wires of medium hardness.

Dimensions in mm					Cutting capacity in mm
L	Α	В	C	D	CU
130	12	11	6	19,2	max. 1,6













2477E	Side cutter, tapered head, flush cut
	For work in confined spaces which are not easily accessible

Dimensions in mm					Cutting capacity in mm
L	Α	В	C	D	CU
127	9	11	6	16,2	max. 1,3

#### Tip cutter with straight head





2470E Tip cutter straight, tapered head, flush cut

For horizontal cutting and easier access to tight spots. For small wires only.

 Dimensions in mm
 Cutting capacity in mm

 L
 A
 B
 C
 D
 CU

 140
 4,5
 11
 6
 29,3
 max. 0,6

#### Tip cutter, 30° angled head





2403E	Tip cutter, 30° angled head, flush cut
	Fairly wide and reduct head fine cut

Tip cutter for general cutting applications.

Dimens	ions in mm				Cutting capacity in mm
L	Α	В	C	D	CU
130	9,3	11	6	19,6	max. 1,3



2404E

Tip cutter, 30° angled head, flush cut

same as 2403E, but with fine rounded head at the front.

Dimensions in mm					Cutting capacity in mm
L	Α	В	C	D	CU
130	9,3	11	6	19,8	max. 1,2



#### Tip cutter, 45° angled head





2482E Tip cutter, 45° angled head, flush cut

Medium size. Ideal for cutting DIL components etc. on PCBs.

Usable at both 90° and 180° angles.

Dimensions in mm					Cutting capacity in mm
L	Α	В	C	D	CU
135	6,2	11	6	26,2	max. 1,0





2475E Tip cutter, 45° angled head, flush cut

Tip cutter, narrow. For fine cutting work on hybrid circuits of miniature components.

For working in confined spaces which are not easily accessible.

Dimensions in mm					Cutting capacity in mm
L	Α	В	C	D	CU
135	4	11	6	22,4	max. 0,6

#### Side cutter, tapered head





2476TX1 Side cutter, tapered head, tungsten hard metal cutting edges, flush cut

Narrow head for perfect work in confined spaces. High precision side cutter ideal for stainless wires, catheters, coils, etc. Suitable for medical applications.

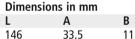
Dimens	ions in mm	1			Cutting capacity in mm
L	Α	В	C	D	piano wire
130	11	11	6	18,5	< 0,3



2443P







1.2 40.5



2411PD Needle nose pliers, same as 2411P but inside serrated for secure grip.



В 33,5 11 40,5



2442P Flat nose pliers with precise smooth jaws.

Precision machined edges for gripping flat workpieces.



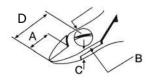
L	Α	В	C	D	E	G
146	33,5	11	6	40,5	3,4	1,2

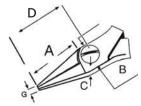


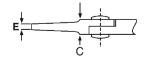
Round long nose pliers with very precise, smooth jaws for bending wires.

#### Dimensions in mm

L	Α	В	C	D	E
146	33,5	11	6	40,5	Ø 0,8







L = total length of blade / pliers

G

1,2

A = jaw length

B = head width

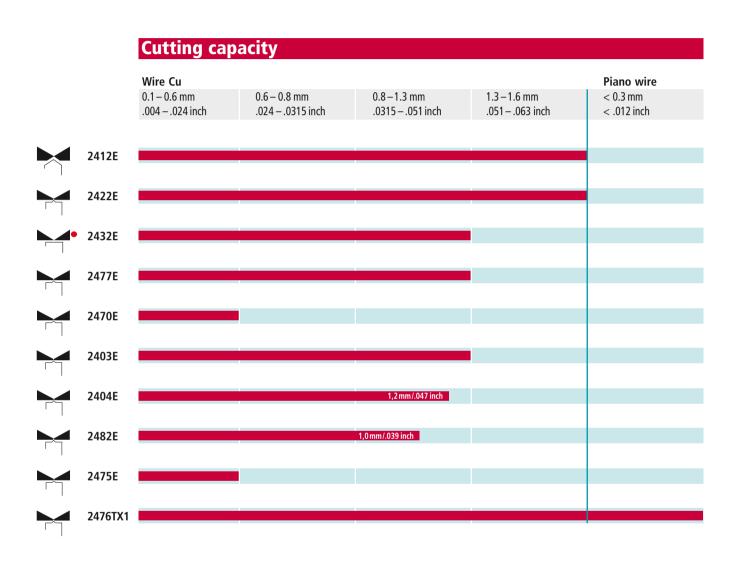
= head thickness

D = head length

E = nose width

G = total height of both noses







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Campbell<sup>®</sup> Caulk Master<sup>®</sup> Crescent<sup>®</sup> Diamond<sup>®</sup> Erem<sup>®</sup> Kahnetics<sup>®</sup> Lufkin<sup>®</sup> Nicholson<sup>®</sup> Plumb<sup>®</sup> H.K.Porter<sup>®</sup> Weller<sup>®</sup> Wire-Wrap<sup>®</sup> Wiss<sup>®</sup> Xcelite<sup>®</sup>