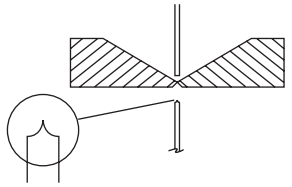
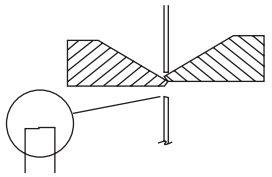
ideal-tek

Training Program - 03. Cutters & Pliers

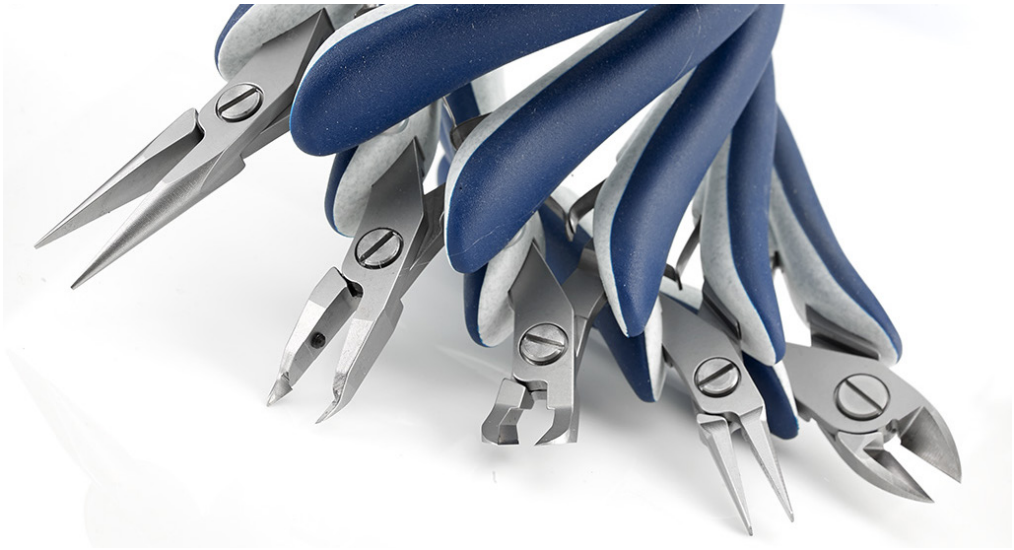
Cutters & Pliers categories

Cutters and Pliers are made in various shapes and sizes and for many uses. Some are used for gripping something round like a pipe or rod, some are used for twisting wires, and others are designed to be used for a combination of tasks including cutting wire. There are also tools that are used just for cutting wires (as opposed to wire cable and rope). Use the correct pliers or wire cutters for your application.

	CATEGORY DESCRIPTION	
HIGH PRECISION CUTTERS & PLIERS	Ideal-tek Swiss Made Cutter and Plier Line with Ergonomic Handles High Precision cutters and pliers are manufactured at Ideal-tek ISO9001 factory in Switzerland from high quality ball bearing steel (45 HRC for pliers - 63 HRC for cutters). Features include superior no-scratch/anti-glare satin finish; 2-Component ESD-safe user-friendly Ergonomic handles with a soft, no particulate, comfortable gripping surface; 2 handle size options: Ergo-tek (E) and Ergo-tek slim (ES) to custom fit your personal preference and application; dual leaf stainless steel springs in standard tension or high tension (KSPRING-S); lap joint with screw in order to achieve a high level of strength and precision; hardened alloy steel joint screws to resist high cutting load; fine-pitched screw for perfect joint adjustment. Cutters are available in three cutting blades: SEMI-FLUSH, for soft and hard wire, FLUSH, for very precise cutting of soft wire. FULL-FLUSH, for a perfect cutting of soft wire.	Compression cutter blades meet edge-to-edge, causing a spiked cut. The spike height decreases using a flush or full-flush cutters 
MICRO-SHEARS & MICRO-PLIERS	Lightweight shear action tools. Micro-shears utilize a shearing cut to provide a clean and smooth cut. Anti-shock shear cutting greatly reduces mechanical shock delivered to the component and requires less effort to cut a wire as compared to compression wire cutters.	Shear flush cutters utilize a shearing cut, with the by-pass cutting edges slicing cleanly through the metal 
PRECISION PLIERS	Precision plier series. Ideal-tek precision pliers are made of AISI 410 Stainless Steel (45 HRC) with one part ESD-safe handles. These pliers feature a unique joint design that allows the two parts of the pliers to be mated at an earlier stage of the manufacturing process. The resulting alignment delivers a precision fit that eliminates “slack” or “play” to minimize wear and enhance life. The extra rigidity and sturdy construction of Ideal-tek precision pliers supports the longer jaws and greater taper.	
ECONOMY CUTTERS	Lightweight economy cutters Ideal-tek economy cutters are ultra-slender and light weight for easy use in hard-to-reach areas. They offer precision cutting edges, non-slip PVC handles, lifetime return spring and black-burnished finish.	

A deep look at HIGH PRECISION C&P - ERGO-TEK LINE

WHY ERGO-TEK C&P?



- ESD SAFE
- ERGONOMIC HANDLES
  - Newly designed modern state-of-art handles
  - Thumb placement design maximizes production
  - Ergonomic research and design to reduce repetitive work place injuries
  - Two size options to fit larger or smaller hands
  - Two spring options: Standard or High tension springs
  - Anti-slip rubber surface for better and more comfortable grip with or without gloves
  - Rounded design with no edges allow use of tool in any position
  - Designed for ease of pick up
- ACCESSIBILITY & VISIBILITY (in confined area)
  - Flush tool joint increases accessibility into tight spaces
  - Ergo-tek slim is designed to increase accessibility and visibility in confined areas
- Excellent CUTTING QUALITY
- Excellent SURFACE FINISHING
- Excellent adjustable JOINT QUALITY
- Designed for controlled environments – no particulates
- LOT TRACKING

ERGONOMICS

NEW ERGO-TEK LINE 3
designed around your hands

With Ergo-tek and Ergo-tek slim, users are now able to custom fit high precision tools to their personal preference and application.

No more, one line fits all!

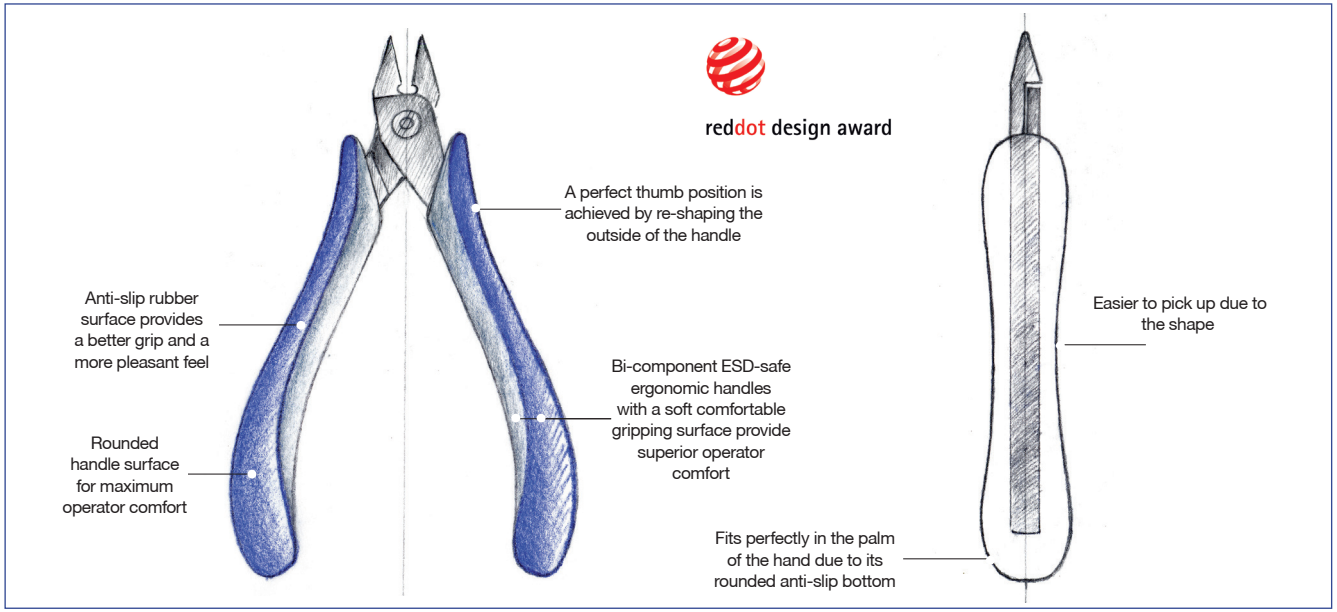
Quality, Innovation and Ergonomics continue to be the constant goals for Ideal-tek.

ERGO-TEK HANDLE

When Ideal-tek introduced the Ergo-tek range in 2013, we set a new benchmark for performance, ergonomics, quality, ESD safety standards and beauty of high precision cutters and pliers.

In conjunction with the University of Milan and the User-Centered Design approach, we conducted an in-depth study of high precision hand tool users to gain a thorough knowledge of needs and issues.

With painstaking attention to detail at every stage of the design process, we created the Ergo-tek, the ideal high precision tool handles.



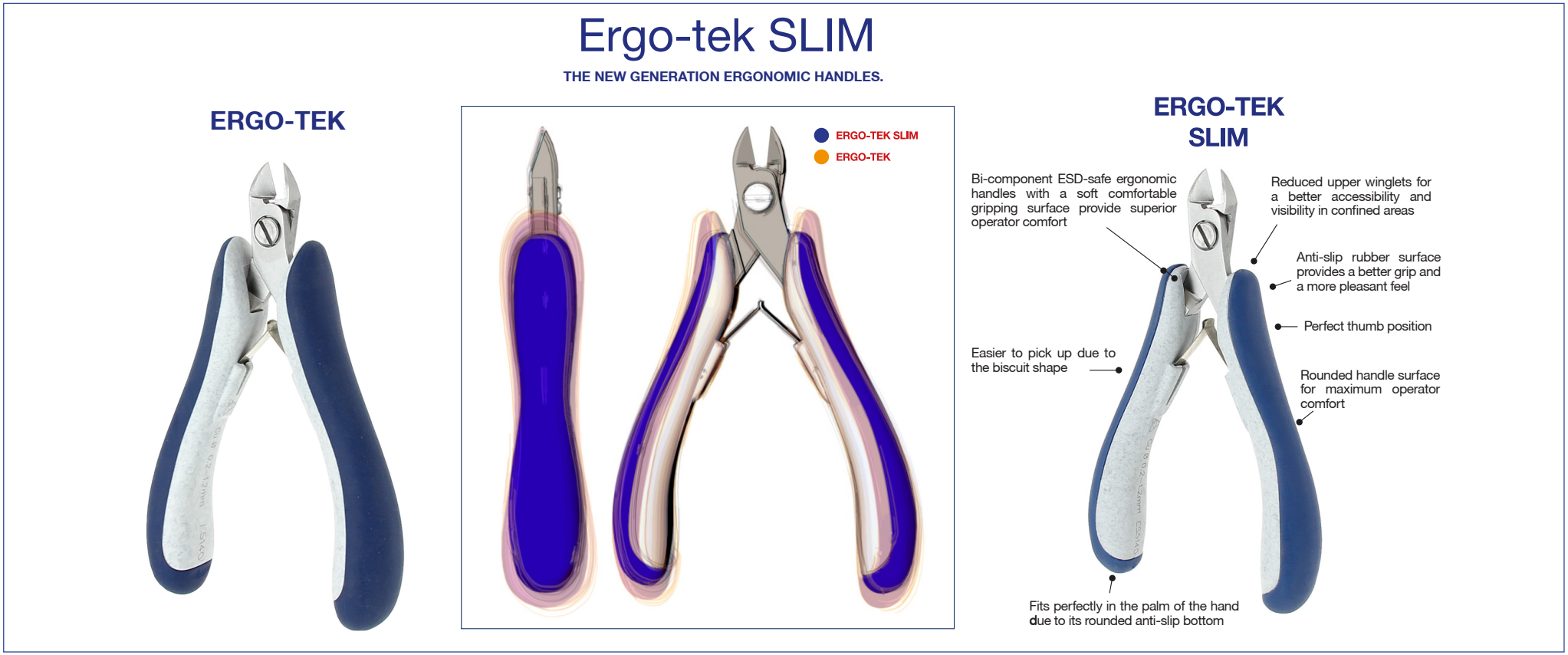
ERGONOMICS

ERGO-TEK SLIM HANDLE NEW 2017

The new lighter weight ERGO-TEK SLIM range is designed especially for smaller hands while providing the same ergonomic, ESD safety standards and technical advantages you expect from Ideal-tek.

Upgraded features:

- Revised ergonomic handle to provide enhanced operator comfort and reduce repetitive motion injuries
- Lighter weight
- Better accessibility and visibility in confined areas



ERGONOMICS

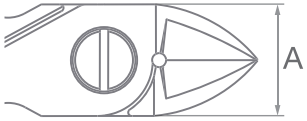
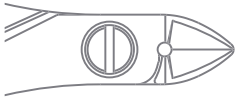
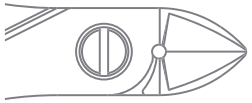
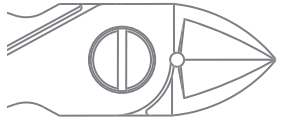
CUTTER AND PLIER HIGH TENSION SPRINGS

To meet customer requests, Ideal-tek has increased the spring range for our Ergo-tek line. In addition to standard springs, (0.35 mm thick) you can now choose strong (higher tension) springs (0.50 mm thick) KSPRING-S.

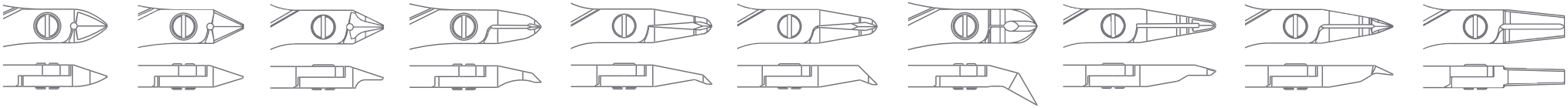
No more, one line fits all!

ERGO-TEK LINE CUTTERS

CUTTER HEAD SIZES

	**MICRO** **513 series**	**SMALL**  **514 / 534 / 554 series**	**LARGE**  **515 / 535 series**	**EXTRA-LARGE**  **516 series**
Width A (mm)	8	10	12.5	16

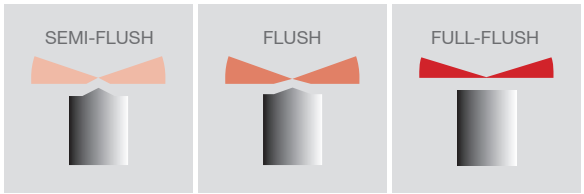
CUTTER HEAD SHAPES



Oval Head	Tapered Head	Tapered & Relieved H.	Oblique Head	Special Head

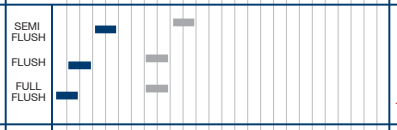
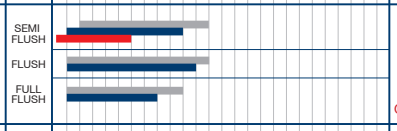
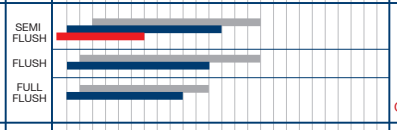
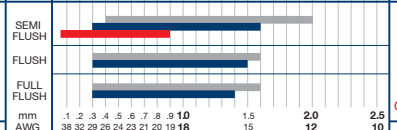
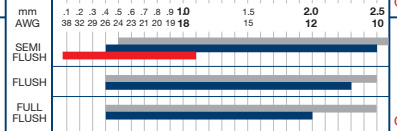
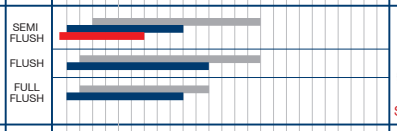
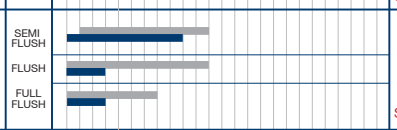
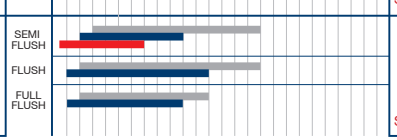
ERGO-TEK LINE CUTTERS

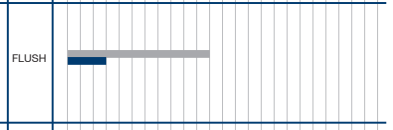
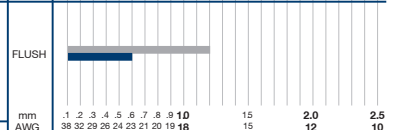
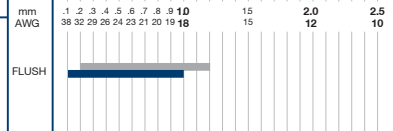
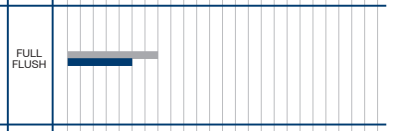
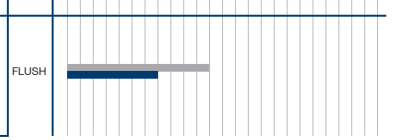
CUTTING BLADE DEFINITION



WIRE DEFINITION

- SOFT wire, copper, aluminium, tensile strength 250 MPa
- MEDIUM-HARD wire, stainless steel wire, material 1.4301, tensile strength 800 MPa
- HARD wire, stainless steel wire, material 1.4301, tensile strength 1800 MPa

E - Ergo-tek / ES - Ergo-tek Slim	Art. No.	CUTTING CAPACITY (SOFT WIRE / MEDIUM WIRE / HARD WIRE)
OVAL	E5130 - ES5130 E5131 - ES5131 E5132 - ES5132	
OVAL	E5140 - ES5140 E5141 - ES5141 E5142 - ES5142	
OVAL	E5150 - ES5150 E5151 - ES5151 E5152 - ES5152	
OVAL	E5160 - ES5160 E5161 - ES5161 E5162 - ES5162	
OVAL	E5160L - ES5160L E5161L - ES5161L E5162L - ES5162L	
TAPERED	E5340 - ES5340 E5341 - ES5341 E5342 - ES5342	
TAPERED	E5350 - ES5350 E5351 - ES5351 E5352 - ES5352	
TAPERED & RELIEVED	E5540 - ES5540 E5541 - ES5541 E5542 - ES5542	
TAPERED & RELIEVED	E5550 - ES5550 E5551 - ES5551 E5552 - ES5552	

E - Ergo-tek / ES - Ergo-tek Slim	Art. No.	CUTTING CAPACITY (SOFT WIRE / MEDIUM WIRE / HARD WIRE)
TAPERED & RELIEVED	E5548 - ES5548	
OBLIQUE	E5245 - ES5245	
OBLIQUE	E5246 - ES5246	
OBLIQUE	E5247 - ES5247	
OBLIQUE	E5250 - ES5250	
SPECIAL	E5233 - ES5233	
SPECIAL	E5234 - ES5234	
SPECIAL	E5235 - ES5235	
SPECIAL	E5291 - ES5291	

ERGO-TEK TUNGSTEN CARBIDE TIP CUTTERS

Ergo-tek Tungsten Carbide Cutters, are specially designed for cutting hard metals. Hard wire cutters can be used on single or multiple filars and for lateral or internal cuts. Typical applications include cutting stents, braided mesh, catheters and guide wires in medical device manufacturing.

E141TX - ES141TX FLUSH
E142TX - ES142TX FULL FLUSH

OVAL

E351TX - ES351TX FLUSH
E352TX - ES352TX FULL FLUSH

TAPERED

E541TX - ES541TX FLUSH
E542TX - ES542TX FULL FLUSH

TAPERED & RELIEVED

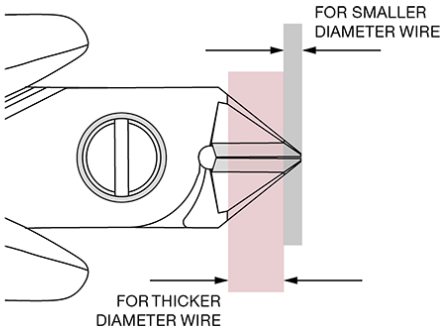
E551TX - ES551TX FLUSH
E552TX - ES552TX FULL FLUSH

TAPERED & RELIEVED

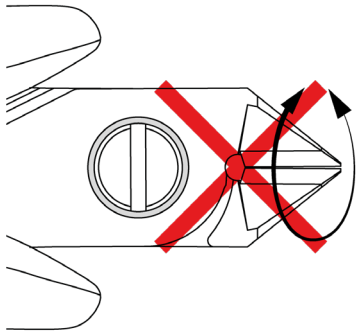
The New ANTI-SHOCK system, on all Ideal-tek tungsten carbide tools, prevents blades from crashing together to extend tool life and productivity ensuring a flush cut to a given standoff.

To avoid damaging your Ergo-tek Tungsten Carbide Cutters, please adhere to the following guidelines:

CUTTING WIRE CAPACITY



DO NOT TWIST WHEN CUTTING



ERGO-TEK LINE PLIERS

Pliers are essential tools for gripping, bending, and shaping metal and wires. Ideal-tek pliers are available with smooth or serrated jaws. Smooth jaws ensure that your work will not be nicked or marked by the pliers. Serrated jaws will give you a much firmer grip.

There are numerous styles of pliers, but the most common are: snipe nose, bent nose, needle nose, flat nose and round nose.

Pliers

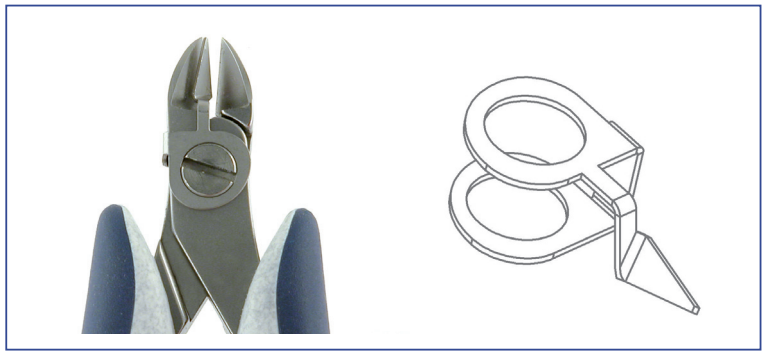
E - Ergo-tek
ES - Ergo-tek Slim

Art. No.	E6021 ES6021	E6022 ES6022	E6023 ES6023	E6024 ES6024	E6023S ES6023S	E6024S ES6024S	E6023B ES6023B	E6025 ES6025	E6011 ES6011	E6012 ES6012	E6013 ES6013	E6014 ES6014	E6041 ES6041
Type	Snipe Nose		Snipe Nose Long		Snipe Nose Strong		Bent Nose	Needle Nose	Flat Nose		Flat Nose Long		Round Nose
Jaws	smooth	serrated	smooth	serrated	smooth	serrated	smooth	smooth	smooth	serrated	smooth	serrated	smooth

WIRE LEAD CATCHER

Wire Lead Catcher, made of stainless steel AISI 304, for Ergo-tek high precision cutters with 10 mm box or 12,5 mm box.
Wire Lead Catcher fits Oval, Tapered and Tapered & Relieved cutters only. Watch the video VIDEO

Easily snapped in place without disassembling the tool



HOW TO MANTAIN YOUR CUTTERS & PLIERS

Ergo-tek Cutters & Pliers are made from high quality ball bearing steel (45 HRC for pliers and 63 HRC for cutters). This material is susceptible to environmental extremes such as high humidity as well as oily or sweaty hands. Soldering fluxes and solvents may also react with tool surfaces.

Ergo-tek Cutters and Pliers are supplied with a tool desiccant pouch to prevent corrosion or surface rust. Ideal-tek recommends that you store your tools with the desiccant pouch. This is especially important in a non-controlled environment.

It is recommended that tools be periodically lubricated. Ideal-tek recommends a Medicinal white Oil (PARAFFIN OIL PERLIQUIDUM 20 PH.EUR) for its lubricant and corrosion preventive qualities. In addition, it's FDA approved for use in Medical Device facilities.

Should surface corrosion appear on a tool, remove it with 400-grit sandpaper and oil the tool as you can see in Ideal-tek Tutorial video.

See in Ideal-tek Tutorial video. VIDEO