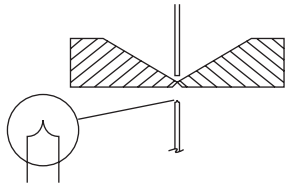
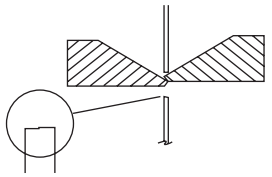
ideal-tek

Training Program - 03. Cutters & Pliers

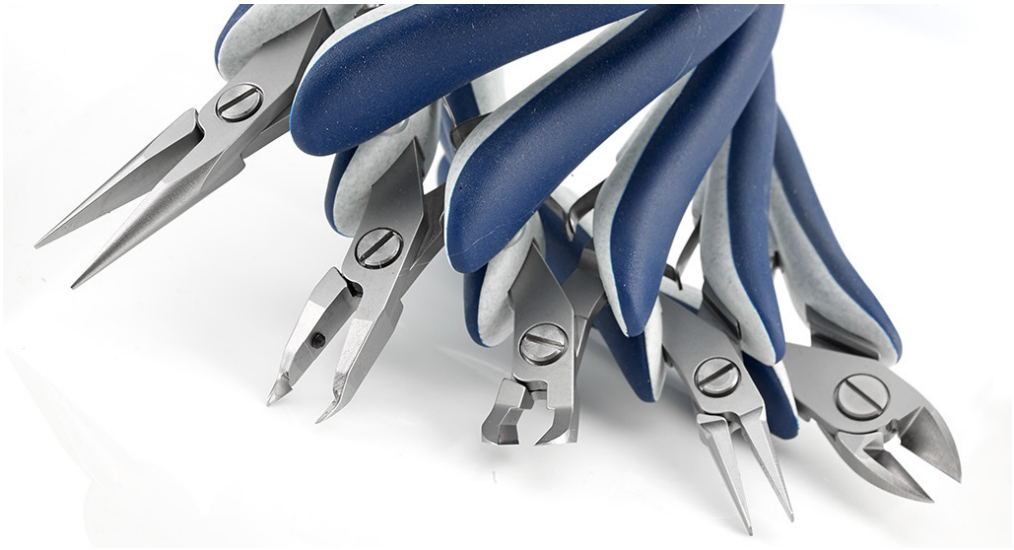
Cutters & Pliers categories

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 Cutter and Plier Line with Ergonomic Handles High Precision cutters and pliers are manufactured 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
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!

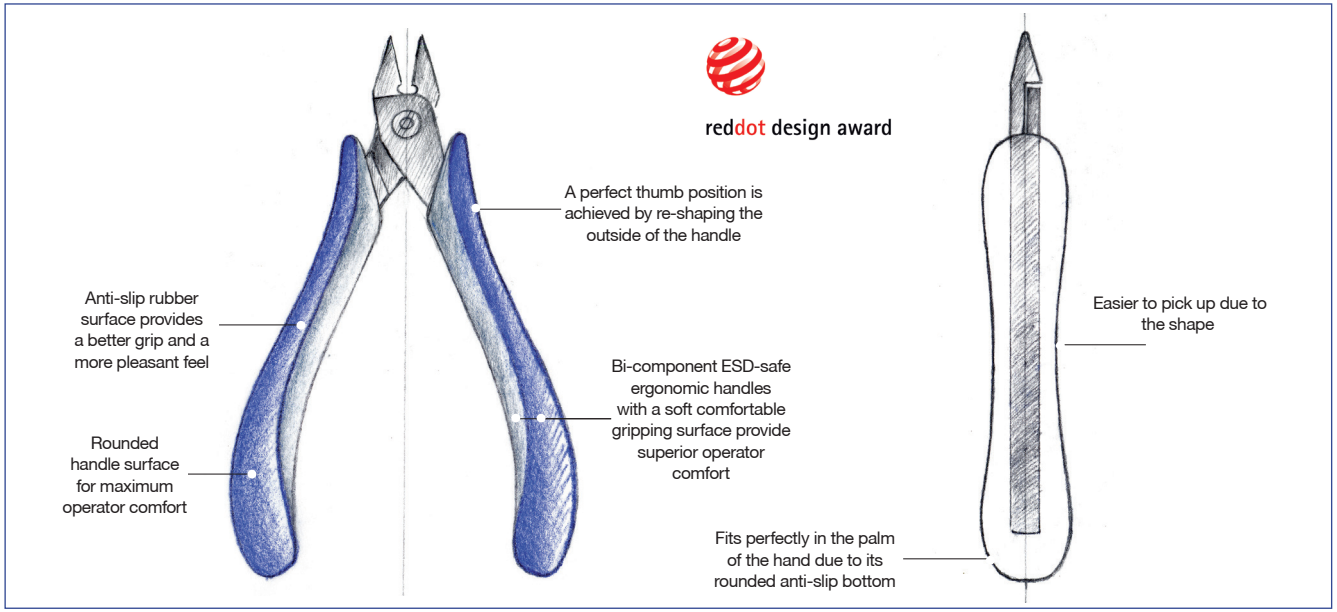
Quality, Innovation and Ergonomics continue to be the constant goals for Ideal-tek.

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.



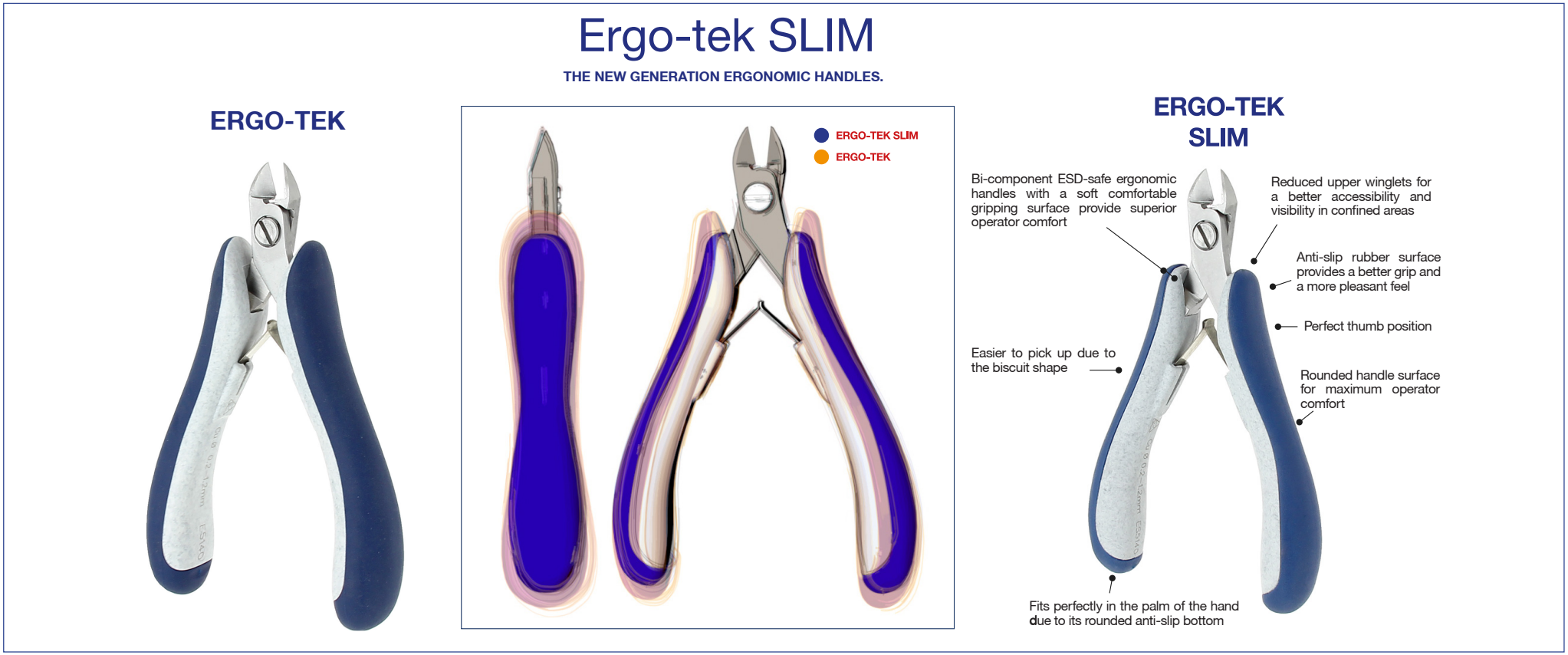
ERGONOMICS

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

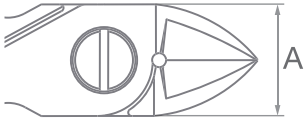
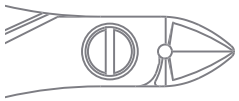
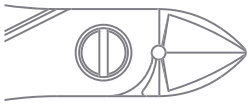
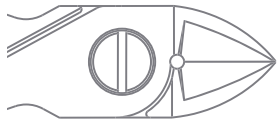
CUTTER AND PLIER HIGH TENSION SPRINGS

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.

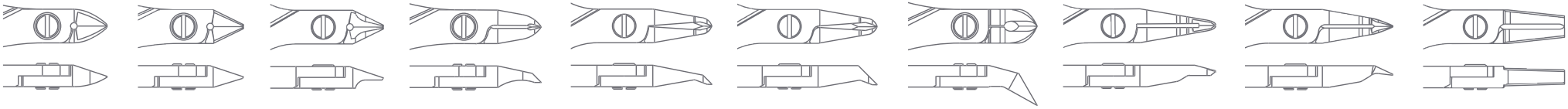
No more, one line fits all!

ERGO-TEK LINE CUTTERS

CUTTER HEAD SIZES

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

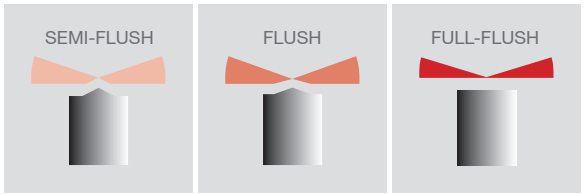
CUTTER HEAD SHAPES



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

ES Ergo-tek Slim	Art.No	CUTTING CAPACITY		SOFT WIRE	MEDIUM WIRE	HARD WIRE
HIGH PRECISION						
 OVAL	5140	SEMI FLUSH	mm	0.2-1.2	0.1-1.0	0.03-0.6
			AWG	32-17	38-18	48-23
	5141	FLUSH	mm	0.1-1.2	0.1-1.0	
			AWG	38-17	38-18	
	5142	FULL FLUSH	mm	0.1-1.0	0.1-0.8	
			AWG	38-18	38-20	
 OVAL	5150	SEMI FLUSH	mm	0.3-1.6	0.1-1.3	0.03-0.7
			AWG	29-14	38-16	48-21
	5151	FLUSH	mm	0.2-1.6	0.1-1.2	
			AWG	32-14	38-17	
	5152	FULL FLUSH	mm	0.2-1.2	0.1-1.0	
			AWG	32-17	38-18	
 OVAL	5160L	SEMI FLUSH	mm	0.5-3	0.4-2.5	0.06-1.1
			AWG	24-09	26-10	42-17
	5161L	FLUSH	mm	0.4-2.5	0.4-2.3	
			AWG	26-10	26-11	
	5162L	FULL FLUSH	mm	0.4-2.5	0.4-2.0	
			AWG	26-10	26-12	
 TAPERED	5340	SEMI FLUSH	mm	0.2-1.2	0.1-1.0	0.03-0.6
			AWG	32-17	38-18	48-23
	5341	FLUSH	mm	0.1-1.2	0.1-1.0	
			AWG	38-17	38-18	
	5342	FULL FLUSH	mm	0.1-1.0	0.1-0.9	
			AWG	38-18	38-21	
 TAPERED	5350	SEMI FLUSH	mm	0.3-1.6	0.1-1.2	0.03-0.7
			AWG	29-14	38-17	48-21
	5351	FLUSH	mm	0.2-1.6	0.1-1.1	
			AWG	32-14	38-18	
	5352	FULL FLUSH	mm	0.2-1.2	0.1-1.0	
			AWG	32-17	38-18	
 TAPERED & RELIEVED	5540	SEMI FLUSH	mm	0.2-1.2	0.1-1.0	
			AWG	32-17	38-18	
	5541	FLUSH	mm	0.1-1.2	0.1-0.4	
			AWG	38-17	38-26	
	5542	FULL FLUSH	mm	0.1-0.8	0.1-0.4	
			AWG	38-20	38-26	

ES Ergo-tek Slim	Art.No	CUTTING CAPACITY		SOFT WIRE	MEDIUM WIRE	HARD WIRE
HIGH PRECISION						
 OBLIQUE	5247	FULL FLUSH	mm	0.1-1.2	0.1-0.6	
			AWG	38-17	38-23	
 OBLIQUE	5250	FULL FLUSH	mm	0.1-0.8	0.1-1.0	
			AWG	32-17	38-18	
 FRONT	5291	FLUSH	mm	0.1-1.2	0.1-0.8	
			AWG	38-17	38-20	
 OVAL & RELIEVED	5441M	FLUSH	mm	0.2-1.2		
			AWG	32-17		
 TAPERED & RELIEVED	5542M	FULL FLUSH	mm	0.1-0.9		
			AWG	38-19		

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.

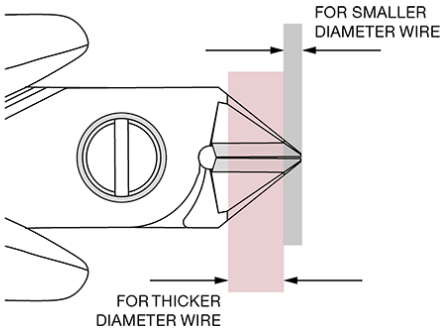
ES Ergo-tek Slim	Art.No		CUTTING CAPACITY	HARD WIRE
TUNGSTEN CARBIDE				
 OVAL	141TX	FLUSH	mm	0.1-0.5
			AWG	38-24
 TAPERED	351TX	FLUSH	mm	0.1-0.6
			AWG	38-23
 OBLIQUE	248TX	FULL FLUSH	mm	0.1-0.3
			AWG	38-29

ES Ergo-tek Slim	Art.No		CUTTING CAPACITY	HARD WIRE
TUNGSTEN CARBIDE				
 TAPERED & RELIEVED	542TX	FULL FLUSH	mm	0.03-0.1
			AWG	46-38
 TAPERED & RELIEVED	552GTX	FULL FLUSH	mm	0.05-0.15
			AWG	44-34

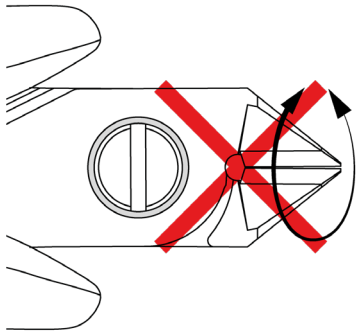
The New ANTI-SHOCK system, on all Ideal-tek tungsten carbide tools, prevents blades from crashing together to extend tool life and productivity ensuring a flush cut to a given standoff.

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

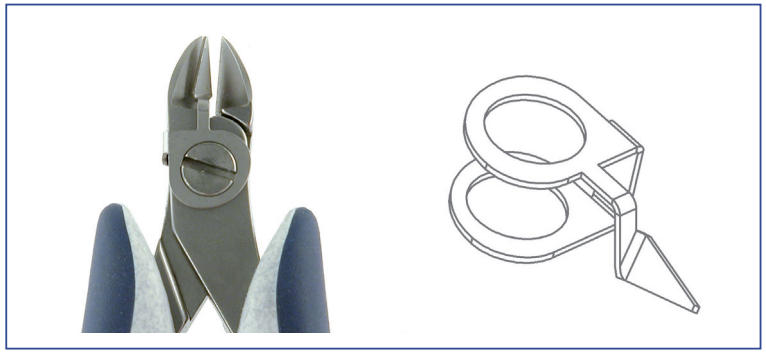
ES - Ergo-tek Slim

Art. No.	6021	6022	6023	6024	6023S	6024S	6023B	6025	6011	6012	6013	6014	6041
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