

SURGICAL Instrument Care

Warranty Information	308
Cleaning & Sterilization	310
Troubleshooting	311
Repair Information	314
ColorDot®	316
Detailed Instrument Inspection.....	317
Cleaners.....	320

Prolonging the life of your SECUROS Surgical Instrument

Implementing a preventative maintenance program for your surgical instruments has never been easier. SECUROS Surgical is proud to offer **FREE Sharpening Repair Service on all SECUROS Surgical Instruments.*** Preventative maintenance of your surgical instruments will not only allow you to perform better surgery, but will also extend the life of your surgical instruments.

*SECUROS Surgical's instrument repair services include inspection, scissor sharpening, orthopedic instrument sharpening, alignment of jaws and tips, complete instrument refurbishing, lubrication, and re-taping. Does not include TC jaw replacement. The FREE services apply to the entire SECUROS Surgical Instrument line.

The instruments will be serviced at SECUROS' National Repair Center by our German-trained instrument technicians. Our advanced repair center has the ability to fully service all of your instrument repair and servicing needs.

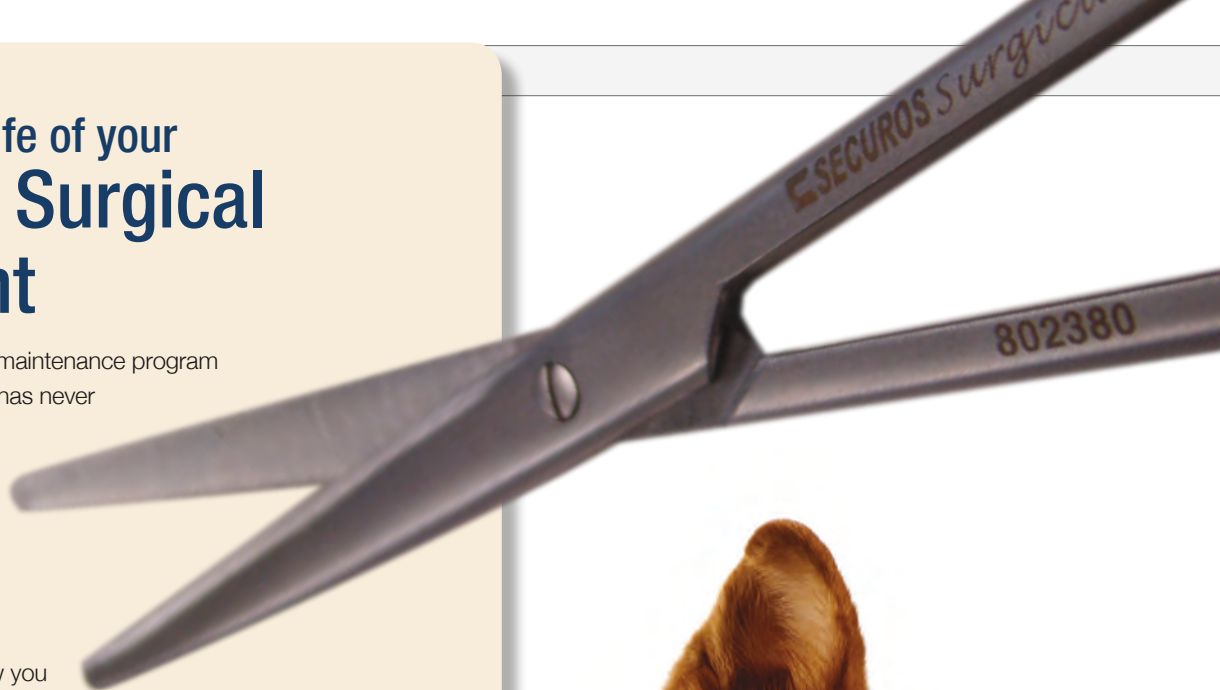
Please contact a SECUROS Surgical sales specialist at (877) 266-3349 to find out more about this exciting service.



Warranty Information

SECUROS guarantees that any surgical instrument will be free of defects in materials and workmanship, when used under normal conditions for its intended surgical purpose. In the event that an instrument is defective, SECUROS will at its sole option either repair or replace the instrument.

Many of the instruments manufactured by SECUROS are hand-finished by skilled craftsmen. Consequently, there may be slight variations in the dimensions of an instrument from those given in the listed specifications.





Thank you for your purchase of SECUROS Surgical instruments. We believe that our instruments are the highest quality available in the industry. We start with the best raw materials and ensure that precise standards are met in every step of the manufacturing and finishing process.

Proper care and handling of your instruments will make them last longer and perform better, thus maximizing your investment. This guide will show you how to properly clean, sterilize and store your instruments, as well as provide troubleshooting tips to help you identify and prevent common instrument stains.

Again, thank you for choosing SECUROS Surgical for your instrument needs.

Manual Cleaning

These are the key steps for manual cleaning:

- Immediately after use, soak instruments in warm water and rinse off all visible bio-burden (blood, tissue, etc.)
- After rinsing, place instruments in Manual & Ultrasonic Instrument Cleaner. Use fresh cleaning solution for each new batch of instruments.
- If rinsing is not immediately available, spray on SECUROS Enzymatic Foam Instrument Cleaner. This will keep the instruments moist and break down bio-burden until they can be cleaned.
- Use a soft nylon brush to scrub delicate instruments.
- After disinfecting, rinse the instruments again: first with tap water then with distilled water.
- Dry all instruments immediately after rinsing and place them on a dry surgical towel.

Recommended product: Manual & Ultrasonic Instrument Cleaner, 1 gallon. Enzymatic Foam Instrument Cleaner, 32 oz.

Lubrication

These are the key steps for instrument lubrication:

- Lubricate all instruments with a box lock (i.e., hinged) with Instrument Spray Lubricant.
- Spray lubricant onto clean surgical instruments.
- Wipe excess lube, then place in a pouch or wrap for sterilization.

Recommended product: Instrument Spray Lubricant, 8 fl. oz.

Sterilization

These are the key steps for sterilizing instruments in an autoclave:

- Lubricate all instruments with a box lock (i.e., hinged) with Instrument Spray Lubricant.
- Do not stack instruments on top of one another or overload the sterilizer, because this will cause excessive condensation and possible spotting on the instruments.
- Place each instrument in its own pouch, with the ratchet in the open position, and lean the pouches against the chamber wall.

Recommended product: Instrument Spray Lubricant, 8 fl. oz.

Ultrasonic Cleaning (if applicable)

These are the key steps for processing instruments in an ultrasonic cleaner:

- Immediately after use, soak instruments in warm water and rinse off all visible bio-burden. Then place instruments into the cleaner.
- Place each hinged instrument in the cleaner with the ratchet in the open position. This will result in a cleaner instrument and preserve the integrity of the box lock.
- Fully submerge all instruments, but do not overload the cleaner.
- Place only like metal instruments together in the cleaner (e.g. do not put chrome-plated instrument in with stainless steel instruments).
- When the cleaning cycle is complete, immediately remove the instruments, and rinse them with distilled water.
- Dry all instruments immediately after rinsing and place them on a dry surgical towel.

Recommended product: Manual & Ultrasonic Instrument Cleaner, 1 gallon

Inspection

- Visually inspect all surfaces of the instruments for stains, cracks, or chips.
- Test sharps on gauze or latex material for proper cutting action.
- Needle holders and hemostats should engage properly and meet correctly at the tips.

Storage

- Store instruments in a climate-controlled area.
- Do not store instruments near chemicals that may emit a vapor.
- Ensure that all instruments are completely dry before storing them.

Troubleshooting

A variety of stains or spotting might appear on your instruments after the cleaning and sterilization processes are completed. Most likely, these are not rust, but rather an indication of improper cleaning or sterilizing procedures. The following chart can help you identify and prevent or remove many of stains that typically show up on instruments.

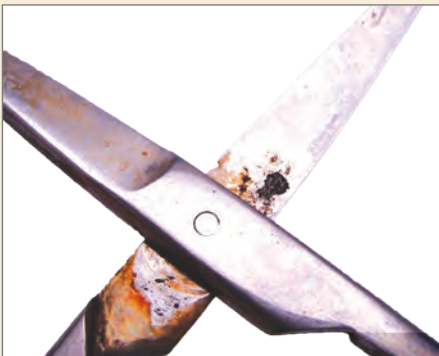
STAIN/SPOT COLOR	POSSIBLE CAUSES	SOLUTIONS
Brown/Orange	Bio-burden (tissue, blood, etc.) left on instrument	Use an eraser to rub off stain
	Detergent pH is too high (>8)	Choose a cleaning solution with a neutral pH
	Soap/detergent residue on drapes/towels used in wrapping	Review laundry protocol to improve soap-free rinse
Rust	Mixing instruments made of different metals in the same cleaning or sterilizing cycle	Separate instruments by metal type for cleaning and sterilization
	Tap water has high mineral content	Use distilled water and thoroughly dry instruments after rinsing
Black/Brown, with pitting	Cold soaking of instruments	Eliminate cold soaking and potential exposure to chemicals during that process
	Detergent pH is too low (<6)	Choose a cleaning solution with a neutral pH
Blue/Black	Mixing instruments made of different metals in the same cleaning or sterilizing cycle	Separate instruments by metal type for cleaning and sterilization
Blue/Gray	Improper cold sterilization	Check solution instructions and follow recommended temperature and soak times
	Chemical or mineral residue	Use distilled water and thoroughly dry instruments after rinsing
Spotting	Slow or improper drying of instruments	Review autoclave manufacturer's instructions
	Mineral residue	Use distilled water and thoroughly dry instruments after rinsing
Multi-Color	Excessive heat during sterilizing cycle*	Review autoclave instructions

*CAUTION: Instrument may be permanently compromised due to loss of tensile strength.

Brown/Orange Staining



Rust



Appearance

- Brown or orange stains

Causes

- Long interval between instrument use and processing, allowing bio-burden to dry
- Unsuitable instrument disinfectant (pH is too high)
- Contaminated towels/drapes
- Overloading autoclave

Treatment

- Use an eraser to rub off the stain, or use SECUROS Stain Remover
- Targeted manual recleaning

Prevention

- Remove bio-burden from instruments immediately after use, process within 15 minutes after surgery
- Soak and clean instruments with Manual & Ultrasonic Instrument Cleaner
- Use a longer rinse cycle for towels/drapes to remove laundry soap residue
- Avoid overloading autoclave which could result in excess condensation

Appearance

- Brown spots or streaks
- Possible pitting under the discoloration

Causes

- Mixing different metals in the same cleaning or sterilizing cycle
- Using water with a high mineral content in the cleaning process

Treatment

- Use a brush and instrument stain remover with distilled water to scrub away spots

Prevention

- Separate instruments by metal type
- Use distilled water throughout the cleaning/sterilizing process
- Avoid overloading autoclave which could result in excess condensation

Pitting With Discoloration



Appearance

- Pinprick-like holes in stainless steel, frequently surrounded by microscopic sparkling, reddish brown or multi-color corrosion spots
- Minor-quality instrument steels might contain material-specific cavities or foreign-matter inclusions—these may resemble pitting, but they are not caused by the cleaning process

Causes

- Exposure to halide ions, especially chlorides that break through the passive layer of instrument steel
- Exposure to liquids with a high chloride content (i.e. bleach or high chloride levels in the final rinse water)
- Exposure to saline solutions
- Contact corrosion might occur when different metals are mixed, (titanium and stainless steel)

Treatment

- SECUROS can clean the instrument with an acid-based cleaner
- SECUROS might be able to treat corrosion holes mechanically

Prevention

- Use distilled water throughout the cleaning/sterilizing process
- Minimize instrument exposure to other liquids containing chlorides
- Separate instruments by metal type

Spotting



Appearance

- Milky white to gray stains
- The stains may extend across a large surface area or be irregular, sharply defined spots

Cause

- Using water with a high lime or mineral content in the cleaning process
- Stacking instruments on top of each other in autoclave
- Overloading autoclave

Treatment

- Wipe off with a soft cloth
- SECUROS can clean the instruments with an acid-based cleaner

Prevention

- Use distilled water for the final rinse, manual cleaning, and ultrasonic cleaning
- Review autoclave manufacturer's instructions
- Avoid overloading autoclave which could result in excess condensation

Sharpening & Resurfacing



Before



After

Clipper Blade Sharpening

Clipper blades can be sent to SECUROS for sharpening.

1. Clean all blades prior to shipping.
2. Wrap the blades with extra padding to cover the tips, and carefully pack them in a box to prevent damage in shipping.
3. Fill out the [SECUROS Instrument Work Order](#) form online or fax it to SECUROS Customer Service for a Return Authorization #.
4. Include a copy of the completed [SECUROS Instrument Work Order](#), with the return authorization number, in the shipping box.

*The sharpened blades will be returned to you within 5 – 7 business days (upon receipt).

*Blades that arrive at SECUROS with broken teeth will not be repaired. SECUROS is not responsible for any damages that occur during shipping.



Repair Information

- SECUROS repairs all brands, all makes and all models of surgical instruments.
- If sending in multiple instruments, label each instrument for the desired service.
- Any non-warranty instrument repairs are subject to the service charges.
- Instruments damaged beyond normal wear and tear may have additional repair costs. A SECUROS Representative will call you to discuss these options if necessary.
- Upon receipt at SECUROS, expect 5-7 days turnaround time, unless otherwise specified.

Non-Warranty Repairs

Instrument Description
Sharpening: Scissors All Sizes
Sharpening: Dental Elevators
Sharpening: Clipper Blades
Sharpening: Osteotome/Chisel
Sharpening: Rongeur
Realignment
Refinishing
Replacement Inserts: Needle Holder
Replacement Screw
ColorDot (color-coded permanent plugs)**
Other (To be determined)

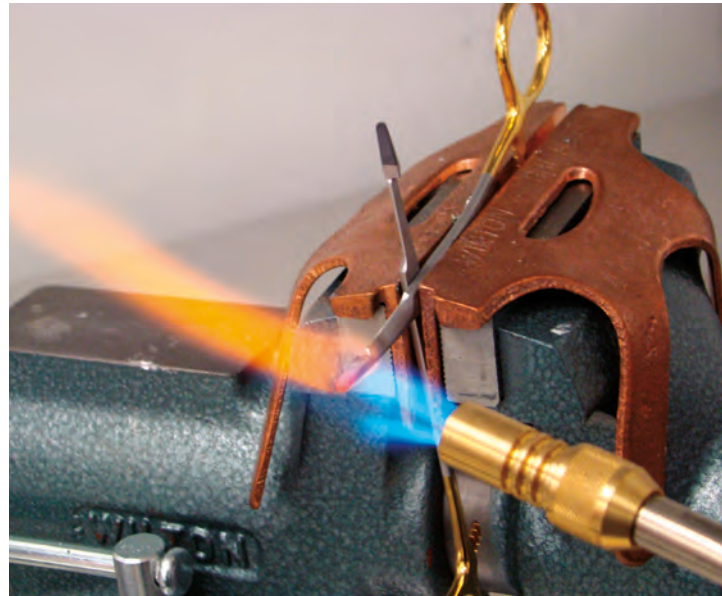
* Turnaround time, upon receipt at SECUROS is 5-7 business days

** Please designate color choice on tag: white/red/orange/yellow/green/blue/purple/brown/black/pink/light blue

Express services available for additional charge. Contact repairs at securos.com for additional information.

For repair service charges please go to:

www.securos.com/repairservice.aspx, call 1-877-266-3349 or email repairs@securos.com.



Instrument Shipping Requirements

1. Clean and sterilize all instruments prior to shipping. (OSHA regulations require all instruments be shipping in sterilized pouches).
2. Wrap any sharp instruments with extra padding to prevent damage in shipping.
3. Individually wrap all clipper blades to ensure they don't break during shipping.
4. Fill out the [SECUROS Instrument Work Order](#) form online or fax it to SECUROS Customer Service for a Return Authorization #.
5. Include a copy of the completed [SECUROS Instrument Work Order](#) form, with the return authorization number, in the shipping box.

The instruments will be returned to you within 5-7 business days (upon receipt).



ColorDot® Instrument Marking System

The SECUROS ColorDot® surgical instrument color marking system is a breakthrough technology that provides permanent and safe marking of surgical instrument packs. The ColorDot® marking plugs are manufactured from a composite ceramic material and are available exclusively through SECUROS Surgical. The SECUROS ColorDot® Instrument Marking System replaces the need for instrument tape and traditional instrument color coding or dipping. While instrument tape fades or comes off after time, and traditional color coding systems crack and breakdown after repeated autoclaving, the SECUROS ColorDot® Instrument Marking System is guaranteed to last for the entire life of the instrument.

The ColorDot® color dots are implanted using a specialty press and have proven to be a great method for identifying surgical packs. The SECUROS ColorDot® Instrument Marking System is available in 11 colors providing customers with many choices and color combinations to mark their instrument packs.

The colors available include:

- White • Red • Orange • Yellow
- Green • Blue • Purple • Brown
- Black • Pink • Light Blue

The SECUROS ColorDot® Instrument Marking System can be placed in all makes and models of instruments for a minimal charge. To utilize the service, send your packs to SECUROS Surgical's National Repair Center located at:

SECUROS REPAIR CENTER

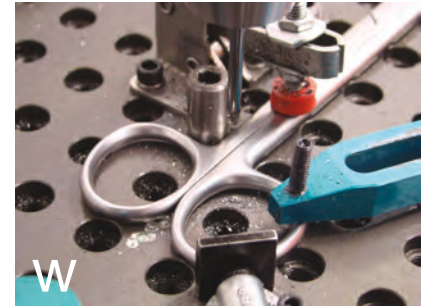
443 Main St.

P.O. Box 950

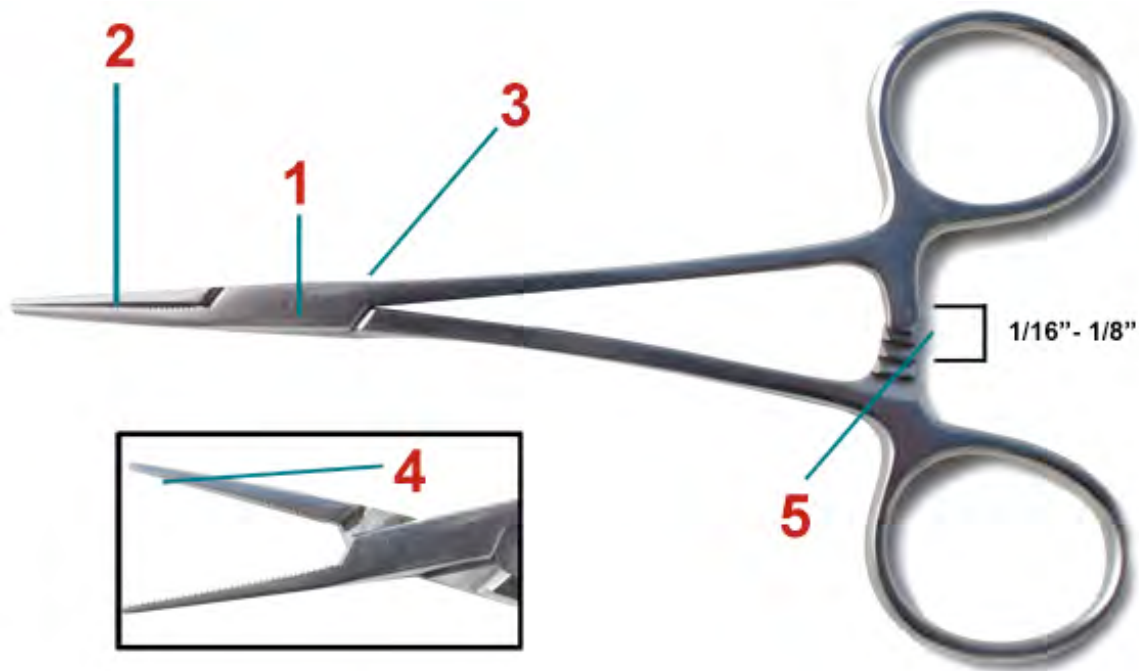
Fiskdale, MA 01518

Please use the Instrument Work Order Form online and request a return authorization # prior to sending.

When purchasing new packs or instruments directly from SECUROS or MWI, be sure to request the SECUROS ColorDot® Instrument Marking System be implemented on all of your new instruments.



Detailed Instrument Inspection



Forceps

1) Cracked Box Lock

- Inspect box lock closely for cracks. Cracks reduce the integrity of the instrument.
- Visible cracks cannot be repaired.

2) Jaw Alignment

- Standard or hemostat forceps: Securely close the instrument and inspect the jaw alignment.
- Forceps with teeth: open and close the instrument to feel if the teeth are engaging each other.
- Misaligned jaws can be repaired.

3) Loose Box Lock

- Open the instrument and hold one ring handle in each hand. Gently move one handle up and down; there should be minor movement in the box lock, but it should not be loose.
- A loose box lock can be repaired.

4) Worn Serrations or Broken Teeth

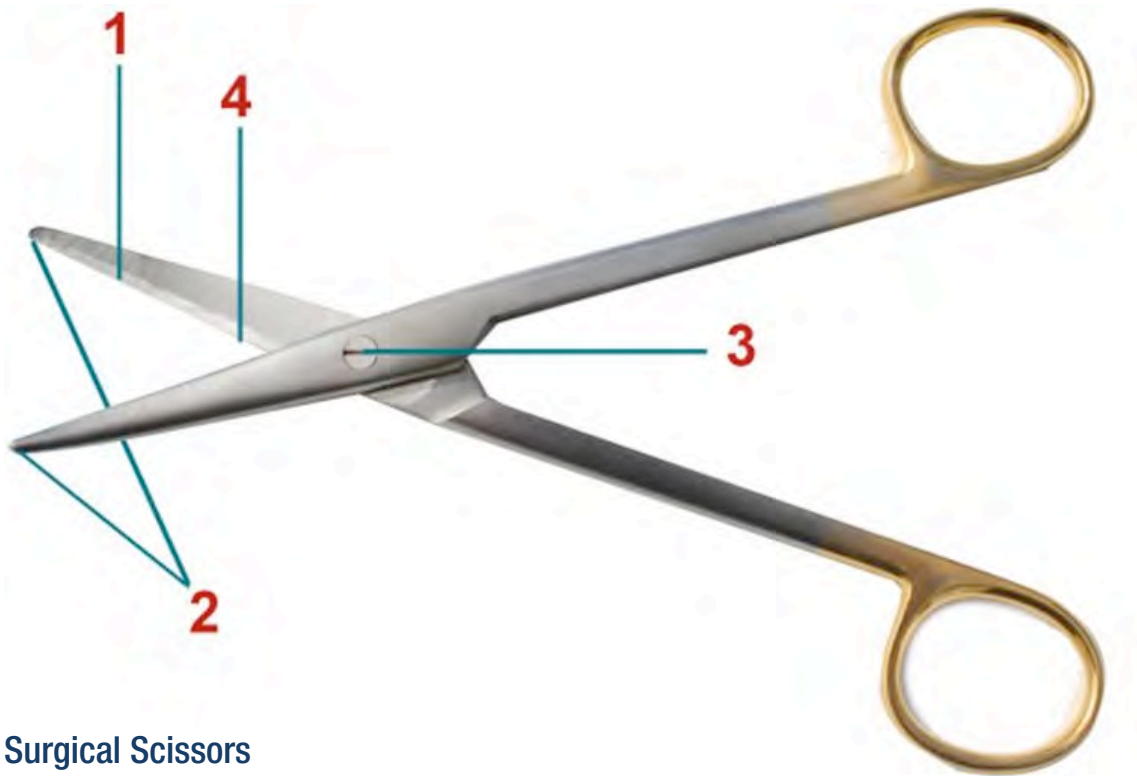
- Inspect the jaws for worn serrations or broken teeth.
- Forceps with worn serrations or broken teeth cannot be repaired.

5) Ratchet Fit

- The instrument should stay tightly locked and properly aligned in the first ratchet position. Closed jaws should have 1/16" to 1/8" of space between the ratchets to maintain proper tension.
- Misaligned ratchets can be repaired.

For best results, send damaged and malfunctioning instruments to SECUROS as soon as possible. Please call or fax the Instrument Work Order Form for return authorization, or use the online form.

Detailed Instrument Inspection



Surgical Scissors

1) Chips, Pitting or Cracks

- Inspect the scissors' cutting edge for any nicks or "holes" from pitting.
- Scissors with these defects cannot be repaired.
- Scissors with vertical cracks through the cutting edge cannot be repaired.

2) Bent or Broken Tips

- Open and close the instrument. Bent tips will rub noticeably at the tip.
- Bent tips can be repaired.
- Broken tips cannot be repaired.

3) Loose or Worn Screw

- A loose or worn screw will make the scissors feel "sloppy" and the cutting edges will not pass together properly.
- A small crack could develop close to the screw.
- A cracked, loose, or worn screw can be repaired.

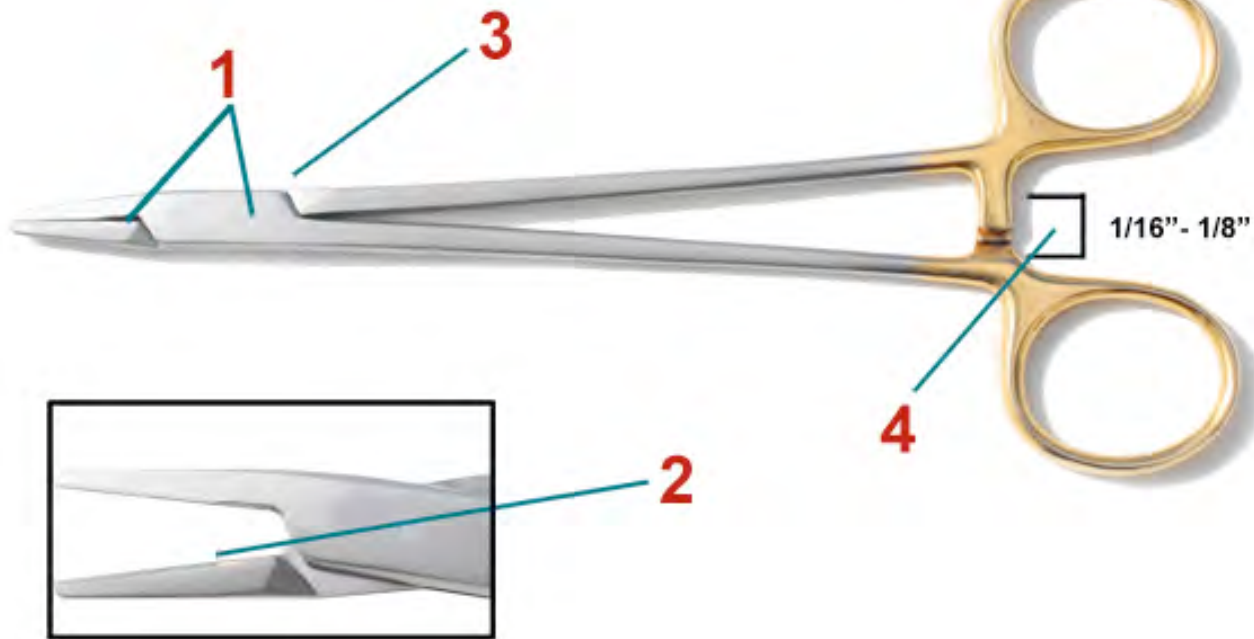
4) Dull Cutting Edge

- Cut one layer of gauze or latex material with the front 1/3 of the blades.
- Scissors should be sharpened if they require force to cut the material or the tips get caught.

For best results, send damaged and malfunctioning instruments to SECUROS as soon as possible.

Please call or fax the Instrument Work Order Form for return authorization, or use the online form.

Detailed Instrument Inspection



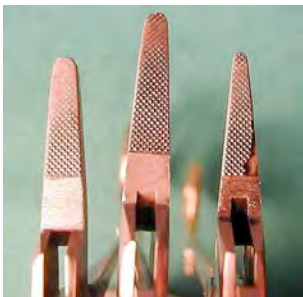
Tungsten Carbide Needle Holder

1) Cracked Box Lock

- Inspect box lock closely for cracks. Cracks reduce the integrity of the instrument.
- Visible cracks cannot be repaired.

2) Cracked Jaws/Cracked or Worn Inserts

- A crack in the jaw appears with a distinct bend with a clear break behind the insert.
- Cracked jaws can be repaired.
- Close the instrument and hold it up to a light. If light is passing between the insert, the instrument needs to be repaired.
- A cracked or worn insert can be replaced.



Signs of wear of the tungsten carbide insert necessitating repair.

3) Loose Box Lock

- Open the instrument and hold one ring handle in each hand. Gently move one handle up and down; there should be minor movement in the box lock, but it should not be loose.
- A loose box lock can be repaired.

4) Ratchet Fit

- The instrument should stay tightly locked and properly aligned in the first ratchet position. Closed jaws should have 1/16" to 1/8" of space between the ratchets to maintain proper tension.
- Misaligned ratchets can be repaired.

For best results, send damaged and malfunctioning instruments to SECUROS as soon as possible. Please call or fax the Instrument Work Order Form for return authorization, or use the online form.

SECUROS Surgical Instrument Care

Clean, rinse and sterilize every new instrument before its first use. Immediately after use, rinse and manually clean instruments using SECUROS Manual & Ultrasonic Instrument Cleaner (#003425). Whenever possible, use distilled water to prevent biological materials from drying on the surface.

Manual Cleaning

- Always use Manual & Ultrasonic Instrument Cleaner. This solution has a neutral pH to prevent staining on instruments.
- Use distilled water for final rinsing.

Lubrication

- Lubricate all instruments with a box lock.
- Spray lubricant onto clean surgical instruments.
- Wipe excess lube from surfaces.

Ultrasonic Cleaning

- Clean instruments in the open position.
- Avoid overloading the chamber and piling instruments on top of one another.

Sterilizing

- Ensure that instruments have been properly cleaned before sterilization.
- Lubricate moving parts of each instrument with Instrument Spray Lubricant.
- Autoclave instruments in the open position.

Inspection

- Visually inspect all surfaces of the instruments for stains, cracks, or chips.
- Test scissors using a latex scissor test material for proper cutting action.
- Needle holders and hemostats should engage properly and meet correctly at the tips.

Storage

- Store instruments in a climate-controlled area.
- Do not store instruments near chemicals that may emit a vapor.
- Ensure that all instruments are completely dry before storing them.

Lubricants



MWI#	SECUROS#	PRODUCT	UNIT
030294	003418	Instrument Spray Lubricant	8 oz.
034255	003423	Instrument Lubricant Milk	1 Gallon

Stain Removers



MWI#	SECUROS#	PRODUCT	UNIT
003419	003419	Instrument Stain Removing Powder	8 oz.

**Cleaner samples are available.
Please call a sales representative for information.**

Cleaners



MWI#	SECUROS#	PRODUCT	UNIT	FORM
033415	003420	Enzymatic Foam Instrument Cleaner	32 oz.	Liquid
033416	003421	Multi-Enzyme Cleaner Packets	32 1/2 oz. Packets	Liquid
055000	003424	Multi-Enzyme Cleaner	1 Gallon	Liquid
043933	003422	Instrument Cleaner and Lubricant	1 Gallon	Liquid
030293	003417	Manual and Ultrasonic Cleaner	8 oz.	Liquid
035674	003425	Manual and Ultrasonic Cleaner	1 Gallon	Liquid
035410	003975	Manual and Ultrasonic Cleaner	3.5 lbs.	Powder
035675	003426	Autoclave Foam Cleaner <i>*Hazmat - must ship UPS Ground Only</i>	22 oz.	Liquid