

# SECUROS SURGICAL

## Instrument Care Guide



A guide to maintaining and  
protecting your surgical instruments

**SECUROS** *Surgical*

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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, soak instruments in Manual & Ultrasonic Instrument Cleaner. This will keep the instruments moist 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.
- Manual & Ultrasonic Instrument Cleaner, 1 gallon

## 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.
- Allow to drip dry, then place in a pouch or wrap for sterilization.
- Instrument Spray Lubricant, 8 fl. oz. (238 mL)

## 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.

## 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.
- Manual & Ultrasonic Instrument Cleaner, 1 gallon

## 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  |
|----------------------------------|---|--|
| <b>Brown/Orange</b>              | 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                             |
| <b>Rust</b>                      | 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               |
| <b>Black/Brown, with pitting</b> | 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                                   |
| <b>Blue/Black</b>                | Mixing instruments made of different metals in the same cleaning or sterilizing cycle | Separate instruments by metal type for cleaning and sterilization              |
| <b>Blue/Gray</b>                 | 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               |
| <b>Spotting</b>                  | Slow or improper drying of instruments  | Review autoclave manufacturer's instructions                                   |
|                                  | Mineral residue   | Use distilled water and thoroughly dry instruments after rinsing               |
| <b>Multi-Color</b>               | Excessive heat during sterilizing cycle*  | Review autoclave instructions  |

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

## Brown/Orange Staining



### 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

### Treatment

- Use an eraser to rub off the stain
- Targeted manual recleaning

### Prevention

- Remove bio-burden from instruments immediately after use, process within 6 hours
- Soak and clean instruments with Manual & Ultrasonic Instrument Cleaner
- Use a longer rinse cycle for towels/drapes to remove laundry soap residue

## Rust



### 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

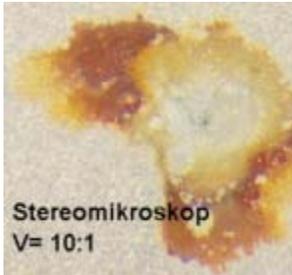
### Treatment

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

### Prevention

- Separate instruments by metal type
- Use distilled water throughout the cleaning/sterilizing process

## 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

### 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

### 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

## 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.

## Clipper Blade Sharpening

Clipper blades can be sent to SECUROS for sharpening. **Please ship at least four blades at a time.**

1. Clean and sterilize 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 and fax it to SECUROS Customer Service.
4. An SECUROS Customer Service Representative will fax you a return label and a return authorization number.
5. 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 2 to 3 weeks.

## Repair Information

- Please call SECUROS Customer Service about any instrument repairs not on this list.
- If sending in multiple instruments, label each instrument for the desired service.
- Any non-warranty instrument repairs are subject to the below prices.
- Instruments damaged beyond normal wear and tear may have additional repair costs. Medical Resources will call you to discuss these options.
- Upon receipt at SECUROS, expect 5-7 days turnaround time, unless otherwise specified.

### Non-Warranty Repair Costs

| Instrument Description                  | Price   |
|---|---------|
| Sharpening: Scissors, Size 3.5" to 5.5" | \$5.00  |
| Sharpening: Scissors, Size 6" to 10"    | \$6.00  |
| Sharpening: Micro Scissors, All Sizes   | \$9.00  |
| Sharpening: Misc. Scissors              | \$10.00 |
| Sharpening: Dental Elevators            | \$5.00  |
| Sharpening: Clipper Blades              | \$4.40  |
| Realignment: Forceps                    | \$6.00  |
| Realignment, Major: Scissors            | \$5.00  |
| Refinishing, Major: Surfacing           | \$3.00  |
| Repair: Needle Holder & Hemostat        | *       |
| Replacement Inserts: Needle Holder**    | \$25.00 |
| Replacement Screw                       | \$5.00  |

\*\* New Tungsten Carbide Inserts: Allow 3-4 weeks for delivery.

## Repair Information (Cont.)

### Instrument Shipping Requirements

1. Clean and sterilize all instruments prior to shipping. (OSHA regulations require all instruments be shipped in sterilized pouches.)
2. Wrap any sharp instruments with extra padding, and carefully pack them in a box to prevent damage in shipping.
3. Fill out the [SECUROS Instrument Work Order](#) form and fax it to SECUROS Customer Service.
4. An SECUROS Customer Service representative will fax you a return label and a return authorization number.
5. Include a copy of the completed [SECUROS Instrument Work Order](#), with the return authorization number, in the shipping box.

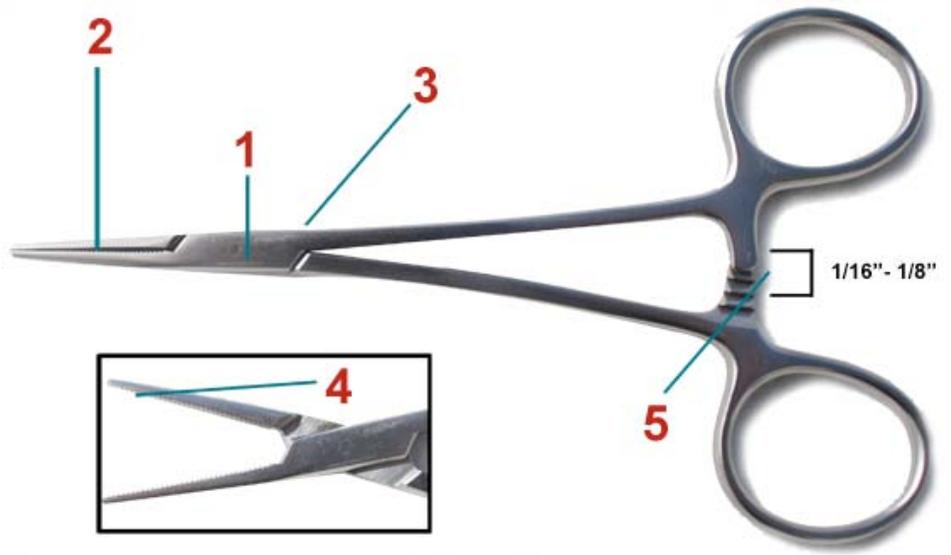
The instruments will be returned to you within 2 to 3 weeks.

### Expedited Repair Procedures

1. All expedited repair requests will require approval from Medical Resources.
2. Clean and sterilize all instruments prior to shipping. (OSHA regulations require all instruments be shipped in sterilized pouches.)
3. Wrap any sharp instruments with extra padding, and carefully pack them in a box to prevent damage in shipping.
4. Fill out the [SECUROS Instrument Work Order](#) form and fax it to Medical Resources.
5. A Medical Resources representative will fax you a return label and a return authorization number.
6. Include a copy of the completed [SECUROS Instrument Work Order](#), with the return authorization number, in the shipping box.

The instruments will be returned to you within 4-5 days.

## 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

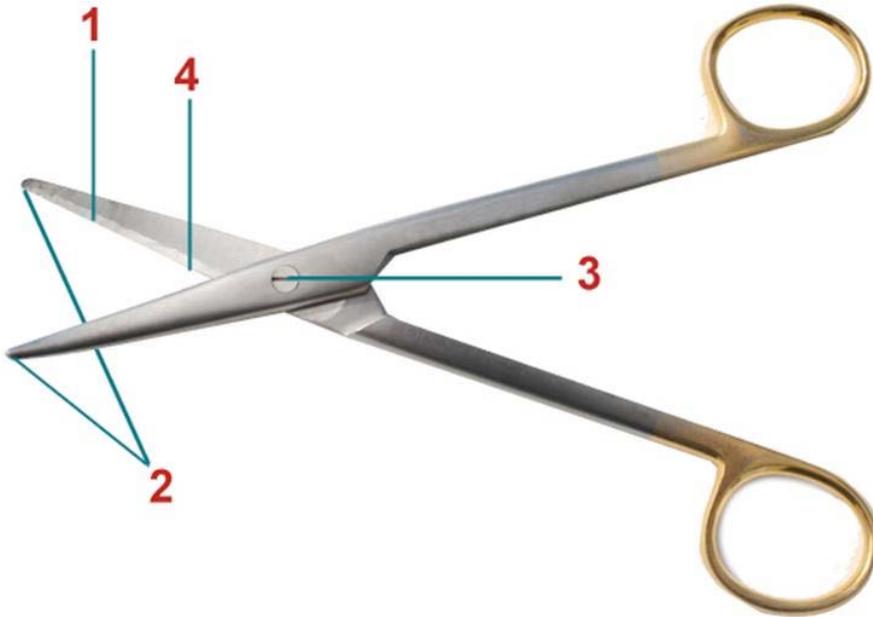
- Inspect the jaws for worn serrations or broken teeth.
- Forceps with worn serrations or broken teeth can be repaired.

#### 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.

## 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 can 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

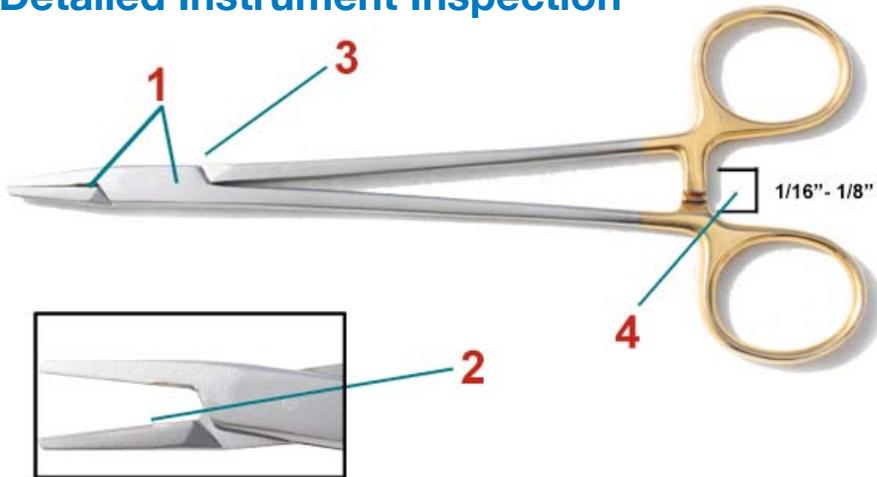
- A loose or worn screw will make the scissors feel "sloppy" and the cutting edges will not pass together properly.
- A small crack could develop close to the screw.
- A cracked, loose, or worn screw can be repaired.

#### 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.

## Detailed Instrument Inspection



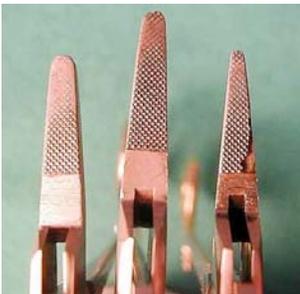
### Tungsten Carbide Needle Holder

#### 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.



## Summary

Clean, rinse and sterilize every new instrument before its first use. Immediately after use, soak instruments in Manual & Ultrasonic Instrument Cleaner or 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 avoid staining instruments.
- Use distilled water for final rinsing.

### Lubrication

- Lubricate all instruments with a box lock.
- Spray lubricant onto clean surgical instruments.
- Allow to drip dry, then sterilization.

### Ultrasonic Cleaning (if applicable)

- 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 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.

## Instrument Spray Lubricant

This convenient, ready-to-use spray lubricant is specially formulated to protect and extend the working life of surgical instruments.

### Product Features

- Contains anti-corrosive agents to protect surface finishes
- Formulated with gentle, non-aggressive ingredients
- Leaves a protective micro-film that prolongs instrument life
- Lubricates moving parts of surgical instruments
- Eliminates time-consuming milk baths

### Directions for Use

Spray onto clean stainless steel surgical instruments. Allow to drip dry, then proceed to autoclave.

### Technical Data

Chemical Description: Water emulsible, non-ionic lubricant emulsion milk with pleasant scent

Physical Appearance: Milky liquid

pH: 6.8–7.2

Specific Gravity: 0.99

### Ordering

Instrument Spray Lubricant, 8 fl. oz. (238 mL)

CAUTION: This is not a sterilant. For use as a lubricant only.



## Manual & Ultrasonic Instrument Cleaner

This neutral pH, liquid detergent concentrate is specifically intended for manual and ultrasonic cleaning of surgical instruments and laboratory glassware.

### Product Features

- Penetrates and removes bio-burden
- Chelating additives prevent scale buildup and staining from hard water
- Special surfactant blend accelerates efficient rinsing
- Clean and fresh scent is pleasant to work with
- Highly concentrated for best economy

### Directions for Use

For normal soil loads, add 5 mL to 1 gallon of warm water for pre-soaking and manual cleaning operations. For best results, rinse instruments with de-ionized or distilled water.

### Technical Data

Chemical Description: Liquid surfactant blend with chelating agents and mild scent

Physical Appearance: Viscous yellow liquid

pH: 7.0–8.0 at recommended dilution ratio

### Ordering

Manual & Ultrasonic Instrument Cleaner, 1 gallon

**CAUTION:** Read material safety data sheet before using this product. As a safety precaution, protect skin and eyes by wearing NIOSH-approved safety goggles and gloves.



## Foam Spray Autoclave Cleaner/Conditioner

This long-lasting cleaning and conditioning foam remains on inside walls of autoclave to eliminate residue as well as odors. The environmentally friendly, non-aerosol formula rinses freely away, and can also be used to clean stainless steel instruments, carts and trays.

### Product Features

- Long-lasting Conditioning Foam: Remains on inside walls of autoclave
- Odor Counteractant: Eliminates unpleasant odors
- Rinses Freely: Imparts residue-free surface
- Non-aerosol: Environmentally friendly
- Multi-functional: Also works well to clean stainless steel surgical instruments, carts and trays

### Directions for Use

1. Spray liberally onto inside walls of autoclave (walls must be cool!) or any stainless steel surface
2. Allow to stand for 15-30 minutes
3. Use a non-metallic brush to speed the cleaning action
4. Rinse with generous amounts of water

### Technical Data

pH: 2.0 (as is)

Specific Gravity: 1.03 g/mL

### Ordering

Foaming Spray Autoclave Cleaner, 22 oz. (650 mL)

**CAUTION:** Contains phosphoric acid, which can burn the skin and eyes upon contact. Use of gloves, eye protection and protective clothing is highly recommended. If contact with skin or eyes occurs, wash immediately with copious amounts of water, then call a physician. Refer to MSDS for additional safety information. Never mix this product with any other product. Must be shipped by ground delivery.





## SECUROS Instrument Work Order

Upon receipt at SECUROS expect 5-7 days turnaround time, unless otherwise specified.

**Complete the Following Information and Fax to:**

**SECUROS Customer Service    Fax #: (508) 347-5330    Phone #: (877) 266-3349**

Hospital Name: \_\_\_\_\_ Contact Name: \_\_\_\_\_

Address: \_\_\_\_\_

City, State, & Zip Code: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Return Authorization #: \_\_\_\_\_

**General Instrument Repair Instructions**

- Please call SECUROS Customer Service about any instrument repairs not on this list.
- If sending in multiple instruments, please label each instrument for the desired service.

| Instrument Description                  | Qty. | Notes |
|---|------|-------|
| Sharpening: Scissors, Size 3.5" to 5.5" |      |       |
| Sharpening: Scissors, Size 6" to 10"    |      |       |
| Sharpening: Micro Scissors, All Sizes   |      |       |
| Sharpening: Misc. Scissors              |      |       |
| Sharpening: Dental Elevators            |      |       |
| Sharpening: Clipper Blades              |      |       |
| Realignment: Forceps                    |      |       |
| Realignment, Major: Scissors            |      |       |
| Refinishing, Major: Surfacing           |      |       |
| Repair: Needle Holder & Hemostat        |      |       |
| Replacement Inserts: Needle Holder*     |      |       |
| Replacement Screw                       |      |       |
| Other, please specify                   |      |       |

\* New Tungsten Carbide Inserts: Allow 3-4 weeks for delivery.

**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. SECUROS Customer Service will fax you a return label for the instruments.
4. Please include a copy of this paper work with the packed instruments.