

## INSTRUCTIONS FOR USE

Products:           Surgical Hand Instruments  
                      Jaw Fracture Splints  
                      Ligature Wire – Remove desired amount from spool  
                      Elastics  
                      Dental Hand Instruments  
                      Orthodontic Hand Instruments

### Warning

These products may contain nickel or chromium and should not be used for individuals with a known sensitivity or allergy to these metals.

### Area of use

E.A. Beck & Co. products are designed to perform a specific function, such as cutting, grasping, clamping, dissecting, probing, retracting, aspirating, suturing or ligating. They are for use by, or as directed by, a dental or surgical professional. Products should be used only for the purpose for which they are designed. The proper dental or surgical technique for the use of any of our products is the responsibility of the professional. Only trained professionals may use, disinfect, clean and sterilize the product.

### Inspection

The products must be checked to make sure they work properly before every use.

Inspect all moving parts, tips, box locks, ratchets and cutting edges. Special attention should be paid to screws that may have come loose in the ultrasonic cleaner. Damage to the surface, such as scratches, cracks, nicks, dents etc. as well as bent parts are indications that they should not be used. The products are then to be repaired or be disposed of according to hospital or office procedure. Do not use damaged products.

All products are shipped non-sterile and must be decontaminated and sterilized prior to use.

### Handling

The products may not be overstressed by twisting or levering, since this can lead to parts becoming damaged or broken.

### Combination with other products and instruments

The products from E.A. Beck & Co. may not be combined with products, components and instruments from other manufacturers under any circumstances. Combinations with products from other manufacturers may negatively affect the usage of the products and are not allowed since the components used may not be compatible with one another.

### Disposal

If the product can no longer be repaired they are to be disposed of according to hospital or office procedure.

### Materials

We use 300 and 400 series stainless steel for all stainless steel instruments. There are some non-stainless steel products that have specific sterilizing requirements. The information is located at the end of this document.

### Decontamination and sterilization procedures

As with any decontamination procedure, personnel should follow accepted guidelines as recommended by A.A.M.I. Standards and Recommended Practice, ANSI/AAMI ST79:2010.

### Decontamination is a two step process:

Thorough cleaning and rinsing  
Sterilization or disinfection

#### A. Manual Decontamination for Stainless Steel Instruments

**Pre-cleaning:** It is recommended that the instruments be cleaned as soon as possible after they have been used. Use only cleaners that are specific to surgical and dental hand instruments and follow the manufacturer's instructions for use.

1. Immediately after the procedure, place the instruments in an instrument tray or container and cover with a towel moistened with sterile distilled water. Foam, spray or gel products, specifically intended for use with surgical instruments, are available to keep the soil moist. Transport tray of soiled instruments in an impervious plastic bag or container with a tight lid to the decontamination environment.
2. All surface contaminants, filling material and corrosive agents should be removed with a disposable cloth or paper towel. Instruments with filling material that has adhered to the instruments should be placed in an ultrasonic machine.
3. Immerse fully opened and or disassembled instruments in an enzymatic solution, specific for use with surgical instruments. Prepare the solution and use per enzyme manufacturer's recommendations, paying special attention to instructions for correct dilution, temperature and soak time. Flush air from all crevices and gaps and be sure that the enzymatic solution is in full contact with these areas during the soak time.
4. Carry out brushing and all other cleaning steps under the surface of the liquid in order to avoid splashing contaminated liquid.
5. Remove from enzymatic soak after the time period recommended by the enzyme manufacturer and rinse thoroughly with distilled water.

**Cleaning:** Choose a cleaning solution appropriate for surgical or dental instruments and follow the manufacturer's instructions for use. The use of neutral pH detergents is vital to the maintenance of surgical instruments. Contact with acidic or alkaline solution will remove the instruments' protective barrier of chromium oxide, often leading to corrosion, pitting, and breakage. You may find that depending on the type of soil, a detergent that is a little more or less acidic or alkaline may be more appropriate. The ideal cleaning agent is nonabrasive, low-foaming and free-rinsing. Be sure the cleaning solution is suitable if you are cleaning instruments other than stainless steel, such as carbide.

1. Use small clean soft bristled brush to clean instruments with an accessible channel. Remove the soil from the ratchets, jaws, tips, box locks and or hinge mechanism. The box lock and hinge portion of an instrument must be thoroughly cleaned after each use. A build up of soil, debris, lubricants, etc. in these areas, will make it difficult to use the instrument and eventually cause irreparable damage to it.
2. Vigorously flush all channels, gaps and crevices with the cleaning solution. Deionized water is recommended and preferred because it is free of the many compounds which exist in ordinary distilled water. These substances, alone, cause stains and when distilled water is combined with some detergents it will form insoluble deposits on the instruments. It is essential to keep the box locks and hinges open during any manual or automated cleaning process.
3. Thoroughly rinse instruments by immersing in distilled water and wiping with a clean, soft cloth.

**Ultrasonic Cleaning:** Follow the recommendations of the ultrasonic manufacturer regarding cycle times, detergents, proper placement of the instrument tray, and conditioning of the cleaning solution. An ultrasonic cleaner should be used to remove soil from hard to reach surfaces such as grooves, crevices, and instruments with moving parts. Change cleaning solution as recommended by hospital or office procedure.

1. Open or disassemble instruments as appropriate.
2. Place instruments in a mesh bottom stainless steel instrument tray. The tray must be sufficiently large and deep enough to guarantee that the instruments are completely immersed.
3. Do not overload the instrument tray.
4. Prepare solution according to manufacturer's instructions for use.
5. Fill all hollow spaces with cleaning solution; make sure all air bubbles are removed.
6. Follow manufacturer's instructions for cycle time.
7. Rinse with distilled water.

**Drying:** Before instruments are wrapped for sterilization or storage, they must be thoroughly dry. If the instruments are wet when wrapped for sterilization it is likely they will come out of the sterilizer wet. Wet sterilizer packs are not suitable for use after sterilization because they may be easily contaminated when handled. In addition, remaining moisture, particularly in box locks and hinges may result in corrosion that will weaken the instrument and lead to breakage during use.

## **B. Automatic Cleaning and Disinfection**

If the possibility exists to clean the instrument with a machine, this is preferable to manual cleaning, since a standardized process can best be achieved this way.

1. Package the instruments using a wrapper, pouch or rigid sterilization container that is appropriate for the method of sterilization to be used.
2. AAMI standards recommend that the sterilizer manufacturer's written instructions for cycle parameters should be followed. Medical device manufacturer's exposure times to sterilization temperature may need to be longer than the minimum indicated by the sterilizer manufacturer but must never be shorter.

Below are the recommended sterilization parameters:

STERILIZER	EXPOSURE TEMPERATURE	EXPOSURE TIME	MINIMUM DRY TIME
Pre-vacuum (wrapped)	121° C (250° F)	20 minutes	20 minutes
	132° C (270° F)	4 minutes	20 minutes
	134° C (273° F)	3 minutes	15 minutes
Pre-vacuum (unwrapped)	132° C (270° F)	4 minutes	
Gravity Steam (wrapped)	132° C (270° F)	18 minutes	

3. After sterilization, check the packaging of the sterilized instruments for damage.

**Storage:** Store the sterilized, packaged instruments in a closed cabinet, protected from dust, moisture and temperature fluctuations. Do not store with chemicals.

### C. Chemical/Cold Sterilization

Most chemical/cold sterilization solutions render instruments sterile only after a 10 hour immersion. This prolonged chemical action can be more detrimental to instruments than the usual 20 minute autoclave cycle. If the instruments need to be disinfected only, a chemical/cold sterilization soak is acceptable, as disinfection will take approximately 10 minutes or more. Check manufacturer's specifications. **Instruments with tungsten carbide inserts should never be chemical or cold sterilized as it may deteriorate the carbide insert.**

Sterile: an absolute term - no living organism survives

Disinfected: basically clean - some organisms may survive

Use the proper sterilization/cleaning technique to render the instrument in the required condition for use.

The above listed instructions were validated as suitable by the product manufacturer so that the instrument can be used again. The one who performs the procedure is responsible for making sure the equipment used, material and personnel in the treatment facility achieves the desired results.

## STERILIZATION RECOMMENDATIONS FOR NON STAINLESS STEEL PRODUCTS

### Recommendations For Autoclaving Elastics Containing Latex

Our part Numbers: 201-021-1, 201-023

Material: Polyisoprene rubber (K-100)

Temperature	Pressure	Time	Cycles
225 °	18 psi	15 minutes	5
235 °	10 psi	15 minutes	4

The number of times the elastics can go through a 15 minute cycle is shown to give you an idea of the material's durability. Two variables are important, pressure and the steam temperature. Many materials fail autoclaving due to the high temperatures of the steam. Cycle parameters will vary between autoclave machines. The listed temperatures and pressures give you optimum cycle parameters to maintain the rubber's performance. If temperature is higher than recommended, test a cycle by reducing the pressure during the cycle. This product can also be sterilized using X-ray and Ethylene Oxide sterilization techniques.

### **Recommendations For Sterilizing Elastics That Are Latex Free**

Our Part Numbers: 201-022 and all non latex elastics

Material: Thermoplastic (K-4060 TPR)

Sterilize using Ethyle Oxide or Gamma Ray

### **Recommendations For Sterilizing Mouth Props That Are Latex Free**

Our Part Numbers: 200-705, 200-706, 200-707, 200-708, 200-709

Autoclave to 275° F, 134°C for 18 minutes

### **Recommendations For Sterilizing Photographic Mirrors**

Our Part Numbers: 800-401, 800-402, 800-403, 800-404

1. Gently wash the mirror with mild hand soap using alcohol to remove greasy substances such as lipstick.
2. Dry the mirror lightly with a soft cloth and then air dry until all moisture has evaporated.
3. Any spots left on the mirror will not come off after heat or autoclave sterilizations. If the mirror cannot be cleaned right away, keep it wet or covered with a wet towel.
4. Never place a mirror into an ultrasonic unit.
5. Keep the mirror out of contact with all other instruments. Wrap the mirror in a microfiber cloth or paper towel and place it in the sterilizing pouch. The wrapping will absorb any steam that builds up on the mirror inside the pouch.
6. Follow the sterilization recommendations stated above for stainless steel instruments.

### **BECK RECOMMENDS THE FOLLOWING PRODUCTS FOR THE CARE OF YOUR INSTRUMENTATION**

200-992 Instrument Cleaning and Stain Remover

200-874, 875, 876 Cleaning Brushes for Suction Tubes

200-879 Cleaning Brush for Instruments

**1105 Tower Road, Schaumburg IL 60173 U.S.A.**  
**(714) 754-1101 – Toll Free: (800) 854-0153 FAX (714) 754-1102**  
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