



SURGICAL DIAMOND KNIVES

Care, Cleaning and Sterilization of Surgical Diamond Knives

General Knowledge and Use:

Surgical diamond knives should be used only by well-trained physicians and personnel.

The knife should be stored in a sterilization container with the blade in the retracted position. Immediately prior to use, expose the blade from the handle of the knife by pushing the proximal end of the handle in the direction of the handle barrel. For safety, retract the blade immediately after use.

Before each use, the knife should be cleaned and sterilized.

The blade should be thoroughly inspected for sharpness, wear, calibration and damage prior to use.

In order to prolong the life of your surgical diamond knife, it should be cleaned and dried immediately after surgery.

Ambler Surgical diamond knives consist of the following materials: natural diamond, titanium, stainless steel, aluminum (specified handles only) and epoxy resin. All applied reprocessing procedures must be compatible with these materials.

These instruments can withstand temperatures up to 140°C (284°F), meaning it can withstand any 132°C (270°F) or 134°C (273°F) autoclave procedure.

Never immerse a hot diamond knife into a cold liquid. Allow it to cool naturally.

Ensure the blade is in the retracted position whenever possible. The blade should be exposed when it is in the surgeon's hands, when it is being rinsed with sterile water for irrigation (SWI), when it is being submerged in the Ultrasonic cleaner or Ambler diamond knife cleaning pack, when it is being cleaned with the steam cleaner, or when it is being inspected under the microscope.

To avoid accidental damage the blade should never touch any hard surface.

If the instrument is not reprocessed immediately after use, minimal care is to rinse it with USP grade sterile water for irrigation (SWI) and to dry it with air from a syringe or with filtered compress air.

Decrease sharpness, blade looseness, handle malfunction, calibration which is out of tolerance, and the general appearance of damage indicate that your diamond knife requires maintenance. Contact an Ambler Surgical representative to schedule maintenance on your knife Toll Free at 1-888-407-0006.

Cleaning, Disinfection, and Sterilization

The parameters for cleaning, disinfection and sterilization listed below represent the recommended and approved procedure by Ambler Surgical. It is not possible to provide guaranteed parameters due to the variations found in reprocessing/sterilization devices. Validation of individual equipment and verification of sterility assurance level must be performed by each facility in accordance with local regulations. Refer to the safety instructions for the use of cleaning and disinfecting solutions and to the hospitals hygienic instructions.

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- **Ultrasonic Cleaner Method:**

Immediately after each use, and prior to initial use, the blade should be thoroughly rinsed with SWI using a 10cc syringe, taking care not to touch the blade with anything other than the fluid.

With the blade extended from the handle, submerge the blade only in to an ultrasonic cleaning unit containing ammoniated cleaner. Hold the blade in the solution for one minute. Do not submerge the entire knife into the solution, only the blade.

Using SWI in a steam generator cleaner (Ambler product #7500E), rinse the blade with flowing steam for 10 seconds, taking care not to touch the blade to any hard surface. Repeat two to three times.

Retract the blade into the handle immediately after cleaning.

Inspect the blade under microscope, not less than 40X, to insure cleanliness and the condition of the blade.

- **Ambler Diamond Knife Cleaning Kit Method:**

Immediately after each use, and prior to initial use, the blade should be thoroughly cleaned using Ambler diamond knife cleaning pack (Ambler product #7402E). Fully extend the blade and gently insert it into the blue colored wet cleaning pad (the larger of the three compartments).

Gently pass the blade back and forth and through the cleaning pad several times in a cutting fashion, creating approximately a ½ inch incision in the pad. Repeat until all visible residue is removed from the blade.

Rinse the solution from the blade by repeating the cutting motion first in the smaller compartment to the left, and finally in the compartment to the right.

Retract the blade into the handle immediately after cleaning.

Inspect the blade under microscope, not less than 40X, to insure cleanliness and the condition of the blade.

Drying and Additional Care:

Submerge only the blade end into a container of fresh 70% isopropyl alcohol. Swish gently to thoroughly wet the blade end. Dry the knife thoroughly with filtered compress air. Hold and rotate it in the stream of air for a period of 15-20 seconds or until there is no visible sign of moisture.

Sterilization:

Your surgical diamond knife should be cleaned, disinfected, dried, and properly packaged prior to sterilization.

Blades should be packaged and stored securely in an Ambler Surgical plastic sterilization tray (Ambler product # 1655E or similar configuration).

Sterilize the knife using a flash steam sterilization cycle of 132°C (270°F) for 4 minutes and a 1 minute drying time, a gravity autoclave cycle at 121°C (250°F) at 15lbs for 15 minutes, or a standard autoclave cycle of 20 minutes at 134°C (273°F).

Facilities that sterilize using different parameters must validate the process independently



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Service/Packaging and Shipping Instructions:

Contact an Ambler Surgical representative to request a diamond blade repair order number and repair form.

To comply with OSHA Blood Borne Pathogens Standards, the device must be sterilized prior to shipment.

Secure the instrument in the Ambler Surgical sterilization tray in which it was provided, or a similar sterilization tray. To further secure the blade, you can use a cable tie or other similar device.

If the blade is loose, please indicate this by putting a note on the sterilization tray.

If the blade will not retract in the handle, cover it by placing a plastic instrument guard over the blade, using caution not to further damage the blade.

If the blade has fallen out of the handle and you are unable to include it in your shipment, secure the blade to a thick piece of paper using one piece of clear tape. Indicate with a note that a blade has been included, and place it in the sterilization container.

Place the cover on the container securely. Wrap the container in bubble wrap or other suitable material to provide cushion during the shipment.

Box and ship the instrument(s) to our repair department using the Ambler Surgical diamond knife repair form provided. It is recommended that you ship using FedEx, UPS or any other time-definite, traceable service. Insurance is at your discretion. Ambler Surgical will not assume responsibility for instruments which are lost or damaged in transit to our repair facility.