**Warnings and Precautions**

- Caution should be exercised when handling devices with sharp points or cutting edges.
- Personal Protective Equipment should be utilized when working with contaminated or potentially contaminated devices.
- Do not use metal brushes or scouring pads during manual cleaning process.
- Use cleaning agents with low foaming surfactants for manual cleaning in order to see instrumentation in the cleaning solution. Cleaning agents must be easily rinsed from device to prevent residue.
- Do not allow contaminated device to dry prior to cleaning / reprocessing.
- Mineral oil or silicone lubricants should not be used on S2S Surgical instruments.
- Neutral pH enzymatic and cleaning agents are recommended for cleaning re-usable devices. It is very important that alkaline cleaning agents are thoroughly neutralized and rinsed from device.
- For exposed springs, coils, or flexible features - Flood the crevices with copious amounts of cleaning solution to flush out any soil. Scrub the surface with a scrub brush to remove all visible soil from the surface and crevices. Bend the flexible area and scrub the surface with a scrub brush. Rotate the part while scrubbing to ensure that all crevices are cleaned.
- Refer to appropriate product Instructions for Use (IFU) for sterility requirements.

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**CTR KNIFE ASSEMBLY**

**A1.** Open locking assembly of the CTR Blade Holder (20-105) by rotating the locking cover upwards.

**A2.** This will expose the Blade Holder Pocket, and guide post.

**A3.** Unpack the Sterile, single use CTR Blade and align the guide hole at the rear of the CTR Blade with the guide post.

**A4.** The rear of the CTR blade should sit snugly in the Pocket.

**A5.** Rotate the locking assembly downward to cover and secure the rear of the CTR blade.

**A6.** The CTR Blade is now ready for use.
Manual Cleaning/Disinfection Instructions

1. Prepare enzymatic and cleaning agents at the use-dilution and temperature recommended by the manufacturer. Fresh solutions should be prepared when existing solutions become grossly contaminated.

2. Place instrumentation in enzymatic solution until completely submerged and soak for a minimum of twenty (20) minutes. Use a nylon soft bristled brush to gently scrub instrumentation until all visible debris is removed. Pay special attention to any cannulated devices and clean with an appropriate bottle-brush. For exposed springs, coils, or flexible features - Flood the crevices with copious amounts of cleaning solution to flush out any soil. Scrub the surface with a scrub brush to remove all visible soil from the surface and crevices. Bend the flexible area and scrub the surface with a scrub brush. Rotate the part while scrubbing to ensure that all crevices are cleaned.

3. Remove the device and rinse thoroughly for a minimum three (3) minutes. Hard to reach areas and cannulations may require special attention for a complete rinse.

4. Place the instrumentation, fully submerged, in an ultrasonic unit with cleaning solution, and sonicate for a minimum of ten (10) minutes.

5. Rinse the device in deionized water for a minimum of three (3) minutes or until all signs of blood or soil is absent in the rinse stream.

6. Inspect device under normal lighting for the removal of visible soil.

7. If visible soil is seen, repeat the sonication and rinse steps above.

8. Remove excess moisture from the device with a clean, absorbent, non-shedding wipe.
Combination Manual/Automated Cleaning and Disinfecting Instructions

1. Prepare enzymatic and cleaning agents at the use-dilution and temperature recommended by the manufacturer. Fresh solutions should be prepared when existing solutions become grossly contaminated.

2. Place instrumentation in enzymatic solution until completely submerged and soak for a minimum of ten (10) minutes. Use a nylon soft bristled brush to gently scrub instrumentation until all visible debris is removed. Pay special attention to any cannulated devices and clean with an appropriate bottle-brush.

   **Note:** Use of a sonicator will aid in thorough cleaning of device. Using a syringe or water jet will improve flushing of difficult to reach areas and any closely mated surface.

3. Remove devices from enzyme solution and rinse in deionized water for a minimum of one (1) minute.

4. Place instruments in a suitable washer/disinfector basket and process through a standard washer/disinfector cycle. The following minimum parameters are essential for thorough cleaning and disinfection.

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1</td>
<td>Two (2) minute prewash with cold tap water</td>
</tr>
<tr>
<td>2</td>
<td>Twenty (20) second enzyme spray with hot tap water</td>
</tr>
<tr>
<td>3</td>
<td>One (1) minute enzyme soak</td>
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<tr>
<td>4</td>
<td>Fifteen (15) second cold tap water rinse (X2)</td>
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<tr>
<td>5</td>
<td>Two (2) minute detergent wash with hot tap water (64-66°C/146-150°F)</td>
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<tr>
<td>6</td>
<td>Fifteen (15) second hot tap water rinse</td>
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<tr>
<td>7</td>
<td>Ten (10) second purified water rinse with optional lubricant (64-66°C/146-150°F)</td>
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<tr>
<td>8</td>
<td>Seven (7) minute hot air dry (116°C/240°F)</td>
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   **Note:** Follow washer/disinfector manufacturer’s instructions explicitly

**Automated cleaning/disinfection Instructions**

- Automated washer/dryer systems are not recommended as the only cleaning method for surgical instruments.
- An automated system may be used as a follow up process to manual cleaning.
- Remove excess moisture from the device with a clean, absorbent, non-shedding wipe.
- Devices should be thoroughly inspected prior to sterilization to insure effective cleaning.