CONVENTUS CAGE™ - DR
Procedure Instruments
Instrument Tray

Equipment Cleaning and Sterilization
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1. **WARNINGS AND PRECAUTIONS**

1.1. Caution should be exercised when handling instruments with sharp points, or cutting/drilling edges. Anytime instruments are to be cleaned (either contaminated or potentially contaminated) Personal Protective Equipment should be used.

1.2. Instruments should remain moistened prior to cleaning, do not allow instruments to dry.

1.3. Do not use metal brushes or scouring pads during manual cleaning process.

1.4. Use cleaning agents with low foaming surfactants for manual cleaning to enable visualization of the instruments in the cleaning solution. The cleaning agents selected must be easily rinsed from the instrument.

1.5. Enzymatic-neutral pH cleaning solutions are recommended for cleaning reusable instruments.

1.6. Some of the Conventus instruments are aluminum with an anodized surface. These instruments must not come into contact with strong acidic or alkaline cleaners and disinfectants, or solutions that contain iodine or chlorine.

1.7. For exposed features (e.g., cavity preparation tool blades), saturate the crevices with copious amounts of cleaning solution to flush out any soil. Scrub the surface with a soft bristled brush to remove all visible soil from the surface and crevices. Rotate the instruments while scrubbing to ensure all surfaces and crevices are clean.

1.8. Mineral oil or silicone lubricants should not be used on instruments.

2. **INSTRUMENT PREPARATION**

Instrument trays, cases and lids must be cleaned separately from instruments. Non-sterile, single use plates and screw implants may remain in the tray/caddy for reprocessing.

Remove major contaminants in the operating room before returning the instruments to the tray. It is preferable to remove contaminants using a dry method. If contaminants are removed using a wet method, place the instruments in a prepared solution directly after they are used. The instruments must be disassembled and open as much as possible. The entire product (including grooves, holes, lumens, etc.) must be sufficiently flushed and covered with solution. Movable parts, such as threads and hinges, may be lubricated prior to sterilization with a non-silicone based surgical instrument lubricant as needed to ensure smooth operation.
3. **CAVITY PREPARATION TOOL**

<table>
<thead>
<tr>
<th>Description</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cavity Preparation Tool</td>
<td>2502-1</td>
</tr>
</tbody>
</table>

![Open Configuration](image)

![Closed Configuration](image)

Remove the Cavity Preparation Tool from the Instrument Set and place in an “Open Configuration”. Do not remove any screws from the tool. Clean the tool after each use according to the following instructions:

1. Rinse the tool under running tap water for two (2) minutes to remove visible soil. Actuate the tool and scrub with a soft-bristled brush while rinsing.

2. Prepare a fresh enzymatic-neutral pH detergent (such as Enzol® Enzymatic Detergent) solution per the detergent manufacturer’s recommendations and place the solution in an ultrasonic cleaner.

3. Immerse the tool in the detergent solution and sonicate for twenty (20) minutes. The tool hoop is to be open while sonicating.

4. Scrub tool with a soft-bristled brush to remove any remaining debris if necessary.

5. Rinse the tool with tap water for two (2) minutes. Actuate the tool and flush all surfaces during rinse.

6. Dry the tool with a clean, soft lint free cloth.

7. Automated washing may be used after manual washing is complete.

8. Examine the tool under normal lighting for visible soil. If present, repeat cleaning.

9. Visually inspect under normal lighting for corrosion, damage, and function. Discard if corroded, damaged, or does not function as intended.

10. Leave device in “Open Configuration” for sterilization.
4. SCREWDRIVER HANDLE

<table>
<thead>
<tr>
<th>Description</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver Handle</td>
<td>891-1</td>
</tr>
</tbody>
</table>

Remove the Screwdriver Handle from the Instrument Set. Remove the H8 Driver Bit if that is still attached. Clean the handle after each use according to the following instructions:

1. Rinse the handle under running tap water for two (2) minutes to remove visible soil. Actuate the handle and scrub, including all cannulation, with an appropriately sized soft-bristled brush while rinsing.

2. Flush the handle cannula with tap water while actuating the knurled section for one (1) minute.

3. Prepare a fresh enzymatic-neutral pH detergent (such as Enzol® Enzymatic Detergent) solution per the detergent manufacturer’s recommendations and place the solution in an ultrasonic cleaner.

4. Immerse the handle in the detergent solution and sonicate for twenty (20) minutes.

5. Scrub handle, including all cannulation, with an appropriately sized soft-bristled brush to remove any remaining debris if necessary.

6. Rinse the handle with tap water for two (2) minutes. Actuate the handle and flush all surfaces during rinse.

7. Dry the handle with a clean, soft lint free cloth.

8. Automated washing may be used after manual washing is complete.

9. Examine the handle under normal lighting for visible soil. If present, repeat cleaning.

10. Visually inspect under normal lighting for corrosion, damage, and function. Discard if corroded, damaged, or does not function as intended.
5. CARTRIDGE HANDLE AND REMOVAL INSTRUMENTS

<table>
<thead>
<tr>
<th>Description</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cartridge Delivery Handle</td>
<td>3388-1</td>
</tr>
<tr>
<td>Implant Removal Tube</td>
<td>4090-1</td>
</tr>
<tr>
<td>Implant Removal Extension</td>
<td>3397-1</td>
</tr>
</tbody>
</table>

Remove the Cartridge Handle, Overmolded Cartridge, and Removal Extension from the Instrument Set. Clean the tool after each use according to the following instructions:

1. Rinse the tool components under running tap water for two (2) minutes to remove visible soil. Scrub components, including all cannulation, with an appropriately sized soft-bristled brush while rinsing.

2. Prepare a fresh enzymatic-neutral pH detergent (such as Enzol® Enzymatic Detergent) solution per the detergent manufacturer’s recommendations and place the solution in an ultrasonic cleaner.

3. Immerse the tool components in the detergent solution and sonicate for twenty (20) minutes.

4. Scrub components, including all cannulation, with an appropriately sized soft-bristled brush to remove any remaining debris if necessary.

5. Rinse each component with tap water for two (2) minutes. Flush all surfaces during rinse.

6. Dry each component with a clean, soft lint free cloth.

7. Automated washing may be used after manual washing is complete.

8. Examine each component under normal lighting for visible soil. If present, repeat cleaning. Reassemble device before sterilization.

9. Visually inspect under normal lighting for corrosion, damage, and function. Discard if corroded, damaged, or does not function as intended.
6. **DRILLS, DRIVER TIPS, AND PINS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5mm Guide Pin</td>
<td>AP-25</td>
</tr>
<tr>
<td>2.5mm Side Cut Drill Bit</td>
<td>DB-SC-25</td>
</tr>
<tr>
<td>5.0mm Cannulated Drill Bit</td>
<td>DB-CA-50</td>
</tr>
<tr>
<td>H8 Cannulated Driver</td>
<td>2042-1</td>
</tr>
<tr>
<td>2.0mm Cannulated Drill Bit</td>
<td>DB-CA-20</td>
</tr>
<tr>
<td>2.2mm Drill Bit</td>
<td>DB-SD-22</td>
</tr>
</tbody>
</table>

Remove each instrument from the Instrument Set. Remove any pins or wires that may be inside the cannulated instruments. Clean each instrument after each use according to the following instructions:

1. Rinse each instrument under running tap water for two (2) minutes to remove visible soil. Scrub each instrument, including any cannulation, with an appropriately sized soft-bristled brush while rinsing.

2. For cannulated instruments, flush the cannula with tap water for one (1) minute.

3. Prepare a fresh enzymatic-neutral pH detergent (such as Enzo® Enzymatic Detergent) solution per the detergent manufacturer’s recommendations and place the solution in an ultrasonic cleaner.

4. Immerse the instruments in the detergent solution and sonicate for twenty (20) minutes.

5. Scrub each instrument, including any cannulation, with an appropriately sized soft-bristled brush to remove any remaining debris if necessary.

6. Rinse each instrument with tap water for two (2) minutes.

7. Dry each instrument with a clean, soft lint free cloth.

8. Automated washing may be used after manual washing is complete.

9. Examine each instrument under normal lighting for visible soil. If present, repeat cleaning.

10. Visually inspect under normal lighting for corrosion, damage, and function. Discard if corroded, damaged, or does not function as intended.
7. TEMPLATES AND TISSUE PROTECTORS

<table>
<thead>
<tr>
<th>Description</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR Implant Template</td>
<td>1450-1</td>
</tr>
<tr>
<td>1.1mm / 1.6mm Tissue Protector</td>
<td>2924-1</td>
</tr>
<tr>
<td>2.5mm / 5.0mm Tissue Protector</td>
<td>2899-1</td>
</tr>
<tr>
<td>2.0mm / 2.7mm Tissue Protector</td>
<td>2714-1</td>
</tr>
<tr>
<td>DR Access Guide – Large</td>
<td>3346-1</td>
</tr>
<tr>
<td>DR Access Guide – Small</td>
<td>3348-1</td>
</tr>
</tbody>
</table>

Remove each instrument from the Instrument Set. Remove any pins or wires that may be inside the cannulated instruments. Clean each instrument after each use according to the following instructions:

1. Rinse each instrument under running tap water for two (2) minutes to remove visible soil. Scrub each instrument, including any cannulation, with an appropriately sized soft-bristled brush while rinsing.

2. For cannulated instruments, flush the cannula with tap water for one (1) minute.

3. Prepare a fresh enzymatic-neutral pH detergent (such as Enzol® Enzymatic Detergent) solution per the detergent manufacturer’s recommendations and place the solution in an ultrasonic cleaner.

4. Immerse the instruments in the detergent solution and sonicate for twenty (20) minutes.

5. Scrub instrument, including any cannulation, with an appropriately sized soft-bristled brush to remove any remaining debris if necessary.

6. Rinse each instrument with tap water for two (2) minutes.

7. Dry each instrument with a clean, soft lint free cloth.

8. Automated washing may be used after manual washing is complete.

9. Examine each instrument under normal lighting for visible soil. If present, repeat cleaning.

10. Visually inspect under normal lighting for corrosion, damage, and function. Discard if corroded, damaged, or does not function as intended.
8. ACCESSORY ITEMS

<table>
<thead>
<tr>
<th>Description</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screw Sizer</td>
<td>2588-1</td>
</tr>
<tr>
<td>Depth Gauge</td>
<td>1078-1</td>
</tr>
<tr>
<td>Wire Plunger</td>
<td>1987-1</td>
</tr>
<tr>
<td>Banded Tissue Retractor</td>
<td>4100-1</td>
</tr>
</tbody>
</table>

Remove each instrument from the Instrument Set. Remove any pins or wires that may be inside the cannulated instruments. Clean each instrument after each use according to the following instructions:

1. Rinse each instrument under running tap water for two (2) minutes to remove visible soil. Scrub each instrument, including any cannulation, with an appropriately sized soft-bristled brush while rinsing.
2. For cannulated instruments, flush the cannula with tap water for one (1) minute.
3. Prepare a fresh enzymatic-neutral pH detergent (such as Enzol® Enzymatic Detergent) solution per the detergent manufacturer’s recommendations and place the solution in an ultrasonic cleaner.
4. Immerse the instruments in the detergent solution and sonicate for twenty (20) minutes.
5. Scrub instrument, including any cannulation, with an appropriately sized soft-bristled brush to remove any remaining debris if necessary.
6. Rinse each instrument with tap water for two (2) minutes.
7. Dry each instrument with a clean, soft lint free cloth.
8. Automated washing may be used after manual washing is complete.
9. Examine each instrument under normal lighting for visible soil. If present, repeat cleaning.
10. Visually inspect under normal lighting for corrosion, damage, and function. Discard if corroded, damaged, or does not function as intended.
9. DR REDUCTION FRAME

**Description**
Reduction Frame

**Model Number**
TR-DR-01

Remove the DR Reduction Tool from the Instrument Set. Do not remove any screws or knobs from the tool. Clean the tool after each use according to the following instructions:

1. Rinse the tool under running tap water for two (2) minutes to remove visible soil. Actuate all fixture knobs and scrub with a soft-bristled brush while rinsing.

2. Prepare a fresh enzymatic-neutral pH detergent (such as Enzol® Enzymatic Detergent) solution per the detergent manufacturer’s recommendations and place the solution in an ultrasonic cleaner.

3. Immerse the tool in the detergent solution and sonicate for twenty (20) minutes. The knobs should not be completely tightened while sonicating.

4. Scrub tool with a soft-bristled brush to remove any remaining debris if necessary.

5. Rinse the tool with tap water for two (2) minutes. Actuate knobs and flush all surfaces during rinse.

6. Dry the tool with a clean, soft lint free cloth.

7. Automated washing may be used after manual washing is complete.

8. Examine the tool under normal lighting for visible soil. If present, repeat cleaning.

9. Visually inspect under normal lighting for corrosion, damage, and function. Discard if damaged or does not function as intended.

10. Leave screws in the middle of their travel for sterilization.
10. **FRAGMENT TARGETING INSTRUMENTS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fragment Targeting Jig</td>
<td>3551-1</td>
</tr>
<tr>
<td>Fragment Targeting Jig Tail</td>
<td>5239-1</td>
</tr>
<tr>
<td>2.2mm Olive K-Wire</td>
<td>3871-1</td>
</tr>
</tbody>
</table>

Remove each instrument from the Instrument Set. Note the Fragment Targeting Jig Tail connects to the Fragment Targeting Jig during the procedure. If still connected, separate them for cleaning and sterilization. Clean each instrument after each use according to the following instructions:

1. Rinse each instrument under running tap water for two (2) minutes to remove visible soil. Scrub each instrument, including any cannulation, with an appropriately sized soft-bristled brush while rinsing.
2. For cannulated instruments, flush the cannula with tap water for one (1) minute.
3. Prepare a fresh enzymatic-neutral pH detergent (such as Enzol® Enzymatic Detergent) solution per the detergent manufacturer’s recommendations and place the solution in an ultrasonic cleaner.
4. Immerse the instruments in the detergent solution and sonicate for twenty (20) minutes.
5. Scrub instrument, including any cannulation, with an appropriately sized soft-bristled brush to remove any remaining debris if necessary.
6. Rinse each instrument with tap water for two (2) minutes.
7. Dry each instrument with a clean, soft lint free cloth.
8. Automated washing may be used after manual washing is complete.
9. Examine each instrument under normal lighting for visible soil. If present, repeat cleaning.
10. Visually inspect under normal lighting for corrosion, damage, and function. Discard if corroded, damaged, or does not function as intended.
11. **AUTOMATED CLEANING/DISINFECTION INSTRUCTIONS**

11.1. Automated washing systems are not recommended as the only cleaning method for these surgical instruments.

11.2. As previously described, an automated cleaning system may be used after manual cleaning is complete.

11.3. All surgical instruments and trays should be thoroughly inspected prior to sterilization to ensure the cleaning was effective.

12. **STERILIZATION INSTRUCTIONS**

The tray and instruments should be inspected to ensure they were thoroughly cleaned prior to sterilization. If any soil is present, they should be re-cleaned.

As the manufacturer, Conventus recommends sterilizing in the provided instrument tray wrapped in standard medical grade steam sterilization wrap. Do not stack trays during sterilization. The following sterilization parameters have been validated by Conventus.

<table>
<thead>
<tr>
<th>Cycle</th>
<th>Minimum Exposure Time</th>
<th>Minimum Temperature</th>
<th>Minimum Drying Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gravity Autoclave</td>
<td>30 Minutes</td>
<td>132°C</td>
<td>20 Minutes</td>
</tr>
<tr>
<td>Pre-vacuum Autoclave</td>
<td>4 Minutes</td>
<td>132°C</td>
<td>20 Minutes</td>
</tr>
<tr>
<td>Pre-vacuum Autoclave</td>
<td>3 Minutes</td>
<td>135°C</td>
<td>20 Minutes</td>
</tr>
</tbody>
</table>

Other configurations and sterilization parameters may also be suitable, but the user must validate any deviation from these instructions provided by Conventus.
13. **INSTRUMENT SET LAYOUT**

Each bracket is designed to hold a specific instrument denoted by the item’s name and model number. For items that do not have a dedicated bracket, place on the pin mat in the bottom tray.

**Bottom Tray**
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