



**WARNING: DO NOT USE ALKALINE-BASED DETERGENTS OR CLEANING AGENTS TO CLEAN TULIP CANNULAS OR ACCESSORIES. USE OF ALKALINE-BASED DETERGENTS VOIDS TULIP MEDICAL PRODUCT WARRANTY**

## POINT OF USE CLEANING

### DURING PROCEDURE

Preparation for cleaning begins at the point of use



- 1. KEEP FREE OF GROSS SOIL** during the procedure.  
Remove gross soil by wiping the surfaces with a moistened sterile surgical sponge and periodically irrigate and flush cannulated instruments.
- 2. TRANSPORTING USED INSTRUMENTS**  
Immediately contain and transport to the decontamination area
- 3. KEEP INSTRUMENTS MOIST DURING TRANSPORT** by presoaking.  
Miltex® Instrument Prep Enzyme Foam (3-760) is a ready to use foaming spray for pre-cleaning of devices.  
  
Spray the Miltex® Instrument Prep Enzyme on soiled instruments, cannulas and accessories until the devices are ready for rinsing.  
  
**CONTAIN CONTAMINATED ITEMS** in a puncture-resistant, leakproof container marked as biohazard.

## DECONTAMINATION

### PRE-TREATMENT

Lower and limit bioburden before sterilization

- 1. PPE** Personal Protective Equipment – **ALWAYS** wear safety protection gear while performing cleaning and when handling biohazardous materials.
- 2. DETERGENT/SOLUTION** use appropriate detergent/concentration.  
  
Use a neutral, pH (7), enzymatic cleaning agent \* intended for manual cleaning and suitable for ultrasonic treatment. Place devices in a solution as per enzyme solution manufacturer instructions using lukewarm (22-43°C) tap water. Completely submerge all instruments in the enzyme solution and soak for at least **20 minutes**.  
  
**SORT AND DISASSEMBLE.** Remove stylets and plugs. Disassemble if possible. (Submerged in presoak)

# IMPORTANT INFORMATION \*\* CLEANING CARE \*\* IMPORTANT INFORMATION

## CLEANING PROCESS

### INSTRUMENT HANDLING

Cleaning may be performed manually, mechanically or a combination of both.

The selection of the cleaning method should be based upon the type of device and manufacturer's recommendations.



- 1. DETERGENT/SOLUTION** use appropriate detergent/concentration. Use a neutral, pH (7), enzymatic cleaning agent \* intended for manual cleaning and suitable for ultrasonic treatment.  
  
**\*Tulip Medical Products recommends these cleaning solutions: Miltex® brand EZ-Zyme® All Purpose Enzyme Cleaner, or Miltex® Surgical Instrument Cleaner. For more information regarding these products, visit on-line: <http://miltex.com/prodinfo/productCare.aspx>**
- 2. CLEAN** using appropriate detergent/concentration. Use a neutral, pH (7), enzymatic cleaning agent \* intended for manual cleaning and suitable for ultrasonic treatment.  
  
Clean the inside of the cannula hub and other device surfaces with a sponge and lukewarm (22-43°C) tap water mixed with the enzymatic cleaning agent, as described by the manufacturer of the cleaning agent.  
**Warning: Do NOT use alkaline-based cleaning agents or detergents. Use of alkaline-based product voids product warranty.**
- 3. BRUSH** with appropriate Tulip Cleaning Brush OR Tulip SoftPicks.  
  
Clean the lumens of cannulas (SUBMERGED) until all visible debris has been removed. \*  
<https://tulipaesthetics.com/collections/cleaning-products>
- 4. FLUSH** lumens and cannulas.  
  
Using a syringe with a volume of 60ml, thoroughly and aggressively flush cannula lumens, holes and other difficult to reach areas. Repeat at least 3 times with lukewarm (22-43°C) tap water-enzyme solution at a concentration recommended by the manufacturer.
- 5. RINSE** by flushing.  
  
Flush the cannula(s) at least 3 times with a syringe (60ml) filled with ultrafiltered, RO, DI, distilled and/or demineralized water.
- 6. SONICATE** ultrasonic cleaner (optional).  
  
Completely submerge instruments in the cleaning solution and sonicate for 10 minutes at 40-45 kHz. Rinse instrument in ultra-filtered, RO, DI, distilled and/or demineralized water for at least 3 minutes or until there is no sign of blood or soil on the device in the rinse stream. Repeat the sonication and rinse steps above.
- 7. DRY** manual or air compressor.  
  
Thoroughly dry moisture from the instrument with a clean, absorbent, non-shedding wipe, or air compressor.

## STERILE PREP

### INSPECTION, ASSEMBLY AND PACKAGING

Appropriately prepare devices for sterilization

- 1. INSPECT** for cleanliness and proper working order. Verify surfaces and lumens are clean.
- 2. TEST** by inserting Tulip SoftPicks® or Tulip Cleaning Brush for ease of insert.
- 3. DRY** all instruments thoroughly. Verify silicone mats and the bases of the tray are dry.
- 4. ASSEMBLE** trays, unlock jointed instruments and place on stringer. Place concave surfaces on edge to protect delicate and sharp items. Don't overload trays or containers.
- 5. PACKAGE** using appropriate wrap, peel pack, or rigid container. Include internal and external chemical indicator (CI), label contents, and initial.  
  
Tulip Autoclave Trays should be double wrapped according to AAMI/CSR technique. The packaging for terminally sterilized instruments should fulfill requirements EN ISO 11607.

## STERILE PROCESSING

### STERILIZATION

Select the correct sterilization parameters

- 1. STERILIZE** according to written IFU (type, exposure and dry time, temperature, etc.).  
  
Pre-Vacuum Steam sterilization is recommended. Wrapped Goods Cycle 4 minutes @ 132° C / 270° F. Dry Time: 20 to 30 minutes, according to load size
- 2. COOL** packages to room temperature before handling.
- 3. CHECK** mechanical, chemical, and biological indicators, and package integrity before releasing the load.  
  
**Note: Tulip has validated its reusable cannulas, injectors, and infiltrators for up to 50 autoclave cycles and strongly recommends replacement after 50 autoclave cycles**

## STORAGE

### STERILE STORAGE

Maintain sterility of items until they are used

- 1. STORE STERILE ITEMS** in closed or covered cabinets to reduce the potential for contamination. Do not stack heavy wrapped items.
- 2. SHELF LIFE** is event related. Check package integrity and internal indicator before use.

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### Disclaimer

These Pre-Cleaning, Cleaning & Sterilization Guidelines are provided as guidelines only, and should not be used in place of the guidelines or standards otherwise followed by a given Operating Room Supervisor, Surgeon, Facility, Hospital, or Institution. Tulip Medical Products relies on the Surgeon or Facility to decide on the best cleaning techniques and/or sterilization methods available for cleaning and sterilization of Tulip Medical Products. See Product Warranty for more information.

### References:

- \*TRUPI 2021 00 - Instructions for Use - Reusable Devices
- FDA Draft Guidance for Industry and FDA Staff - Processing and Reprocessing Medical Devices in Health Care Settings: Validation Methods and Labeling, 2011.
- AAMI ANSI TIR 30 and TIR 12.
- EN ISO 11607 (ANSI AAMI ISO11607): Packaging For Terminally Sterilized Instruments (replaced EN 868-1 and ISO 11607)
- EN ISO 17665 (ANSI AAMI ISO17665): Sterilization Of Health Care Products, Moist Heat (Replaced EN 554 and ISO 11134)
- ANSI/AAMI ST79: Comprehensive Guide To Steam Sterilization And Sterility Assurance In Health Care Facilities
- EN ISO 17664: Sterilization of Medical Devices - Information To Be Provided By The Manufacturer For The Processing Of Resterilizable Medical Devices.