The recommendations indicated below are to be used as general guidelines. Follow the specific sterilization or disinfection procedures that have been validated by your institution. Always carefully examine the physical integrity of the product after processing. Do not use if cracking or crazing is seen, or if parts fit together improperly after processing.

**Reusable Plastics & Silicone Rubber Products**

A thorough pre-washing of products is necessary to remove foreign and/or organic contaminants. Use a low alkaline soap (pH 8.5 or less) to preserve maximum useful life.

**Sterilization:**

**Steam Autoclave:**
Sterilize according to validated parameters. Do not exceed 275°F (135°C). Do not steam autoclave polycarbonate products.

**Gamma Radiation:**
Irradiate according to validated parameters. Some discoloration may occur. Do not irradiate polyethylene products.

**Ethylene Oxide:**
Sterilize according to validated parameters. Do not exceed 131°F (55°C). Allow ample aeration time in a well-ventilated area to dissipate the absorbed gas.

**Gas Plasma:**
Sterilize according to validated parameters.

**High Level Disinfection:**

**Pasteurization:**
Pasteurize at 153°F - 163°F (70°C +/-3°) for a minimum of 30 minutes.

**Chemical Disinfectants:**
Disinfect according to validated parameters. Follow the chemical manufacturer’s recommendation for temperature and soak time. Chemical disinfection should be followed by sterile water rinse.

**Recommended Chemical: 2-4% Activated Glutaraldehyde**
Exposure time should be based on the manufacturer’s indication for use as a high-level disinfectant or sterilant. Do not use alcohol or chemicals containing dimethyl ammonia chloride.

**Disposable — Single Patient Use Products**

Instrumentation Industries, Inc. disposable products are designed for single-patient use. Pasteurization or chemical disinfection is recommended for most Single Patient Use products prior to usage. Do not steam autoclave!

**Sterilization:**

**STERRAD 100S:** (Polystyrene Butadiene only)
Full short sterilization cycle (Hydrogen gas plasma, 55 minutes, 45°C - 55°C).

**Endotracheal Tube Changers**

Endotracheal Tube Changers are designed for Single Patient Use only. Recommended High Level Disinfection methods are Pasteurization at 153°F - 163°F (70°C +/--3°) for a minimum of 30 minutes, or Chemical Disinfection. Sterilization can be performed in 100% ethylene oxide at 129°F (54°C) for 60 minutes. Sterilized tubes must be allowed to aerate for no less 12 hours to dissipate any residual gas.

Steam autoclave, gas plasma and gas radiation are not recommended processing methods.
Ventilator Tubing

Ventilator Tubing should be cleaned with a mild detergent followed by a sterile water rinse prior to processing.

Reusable Tubing:
- Steam Autoclave at 270°F (132°C)
- Pasteurize at 170°F (77°C)
- EtO at 131°F (55°C)
- Gamma Radiation

Single Patient Use Tubing:
- EtO at 131°F (55°C)
- Gamma Radiation

Reusable Neoprene Products

Test Lungs:
Clean
Wipe the exterior with a soft cloth, water and a mild detergent or liquid soap. Rinse exterior (do not allow water to enter the bag). Allow to air dry. Do not clean with alcohol

Reusable Breathing Bags:
Clean
Wash with mild detergents or natural liquid soap followed by a thorough rinse.

High Level Disinfection
Pasteurization:
Pasteurize at 160°F - 170°F for minimum of 30 minutes. System should have a mechanism for removing all air pockets before initiating the cycle.
Caution: Plasma Pasteurization will accelerate deterioration.

Chemical Disinfectants:
High level disinfection can be achieved using most cold sterilants. Follow the chemical manufacturers' recommendations for temperature and soak time and remove all air pockets. Chemical disinfection should be followed by a sterile water rinse

Sterilization
Steam:
Steam sterilize with temperature not exceeding 270°F (132°C). The temperature must never exceed 273°F (134°C).
Caution: Drying vacuums should be avoided.

Ethylene Oxide Gas:
Gas sterilize by using an Ethylene Oxide mixture at 125°F to 135°F. Follow the sterilizer manufacturers' recommendations for rubber articles. Allow ample aeration time in a well-ventilated area to dissipate the absorbed gas. Consult the sterilizer manufacturers' recommendations of specific aeration periods.

Drying
If a mechanical dryer is used to dry the products following disinfection or sterilization, a bio clean dryer with a HEPA filter is recommended to prevent recontamination while drying. Do not exceed 140°F and remove the product as soon as all moisture has evaporated. Exposures to elevated temperatures when the product is dry will significantly shorten product life.

Single Patient Use Neoprene Products

Single Patient Use Breathing Bags:
Clean
Wipe the exterior with a soft cloth, water and a mild detergent or liquid soap. Rinse exterior (do not allow water to enter the bag). Allow to air dry. Do not clean with alcohol

Metal Products

Instrumentation Industries, Inc. Metal products include all Brackets, Flexible Support Arms, Instant Flow Valves, and Manual Jet Ventilators. Clean these products by wiping the outside with a disinfectant on a soft cloth.
Do not immerse, disassemble, use bleach, or sterilize.
**Other Cleaning Recommendations**

The recommendations indicated below are to be used as general guidelines. Always carefully examine the physical integrity of the product after cleaning. Do not use if damage is seen, or if parts fit together improperly after cleaning.

**Acrylic Products**

Instrumentation Industries, Inc Acrylic products include Mask/Filter Storage Boxes. Clean these products by wiping the exterior with a soft cloth, water and a mild detergent or liquid soap.

**Do not use abrasive cleaners.**

**Home Use Cleaning Recommendations**

Wash parts in a mild liquid dish detergent. Parts should be thoroughly scrubbed in order to remove all contaminants. Rinse well; ensure all remaining detergent is removed. Soak parts for 20 minutes in a fresh vinegar solution that is 1 part vinegar and 3 parts water. (EXAMPLE: ½ cup vinegar and 1 ½ cup water).

**Thoroughly rinse parts with water. Allow to air-dry on a clean towel.**

**Do not wipe or dry with towel.**