Cleaning Instructions

(Suggested cleaning procedures for Tulip Products)

Cannulas, Injectors and Accessories.

**Cleaning:** Cannulas and Injectors must be cleaned to remove contaminating substances prior to sterilization. After each use, perform initial cleaning within the sterile field by wiping cannula or injector free of blood and body fluids. Then clean the cannula or injector thoroughly with a mild soapy solution. **DO NOT USE ALKALINE BASED CLEANERS.** Complete preparation for sterilization in accordance to hospital procedure using an approved cleaning agent.

Do not soak or expose the cannulas to instrument milk. Instrument milk will lubricate the hubs disrupting the seal between the syringe and the hub. The cannulas are cleaned by flushing a grease cutting germicidal and antiviral solution through the cannula with a syringe. A sponge and Q-Tip for the female luer section is used to clean the inside of the hub of any fatty oil or deposits.

**Do not run any type of abrasive materials or brushes through the lumen of the cannulas.** The abrasive material can score the inside of the cannula rendering them inefficient. After flushing, the cannulas need to be well rinsed with warm to hot water.

Visually inspect each cannula to ensure all fatty deposits are removed. All instruments should be cleaned and rinsed with a mild, non-abrasive, grease removing cleaner before they are sterilized.

Tulip Products recommends that during the cleaning and rinsing procedures, all instruments should be inspected. Ultrasonic cleaning after manual cleaning is recommended.
Sterilization Instructions

(Suggested Sterilization procedures for Tulip Products)

Cannulas, Injectors and Accessories.

**Sterilization:** Cannulas, Injectors, and Accessories may be steam autoclaved at a temperature of 121°C (250°F) for 30 minutes or flash autoclaved at a temperature of 127° to 132°C (260° to 270°F) for 10 minutes.

**Recommended Sterilization Parameters**

<table>
<thead>
<tr>
<th>Method</th>
<th>Unwrapped Goods Cycle</th>
<th>Wrapped Goods Cycle</th>
<th>Dry Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE VAC</td>
<td>5 minutes @ 132°C / 270°F</td>
<td>5 minutes @ 132°C / 270°F</td>
<td>none</td>
</tr>
<tr>
<td>Gravity</td>
<td>10 minutes @ 132°C / 270°F</td>
<td>30 Minutes @ 132°C / 270°F</td>
<td>Dry time: per facility</td>
</tr>
<tr>
<td></td>
<td>60 Minutes @ 132°C / 270°F</td>
<td></td>
<td>Dry Time: per facility</td>
</tr>
</tbody>
</table>

*Depending on Hospital Protocol

**Warning:** Flash sterilization is not the recommended sterilization method. Tulip Cannulas and Injectors should be steam autoclaved when time permits. However, flash sterilization may be used when there is an immediate need for a cannula, injector, or accessory and there is no other alternative.

**Aeration:** As required, to return to room temperature or to start next cycle.

Contraindication: Hospital policy and procedure(s) takes precedence over this protocol.

Failure to use approved cleaning & sterilization procedures may void the warranty.