

## Instrument Stringers

### INTENDED USE:

Key Surgical® instrument stringers are designed to keep hinged instruments open during cleaning and sterilization.

### CONTRAINDICATIONS:

There are no known contraindications and/or adverse effects.

### INSTRUCTIONS FOR USE:

1. If the stringer has a locking mechanism, unlock the stringer.
2. Place ring-handled instruments on the instrument stringer, one ring on each post.
3. Lock instrument stringer to secure instruments if locking mechanism exists.
4. Instrument Stringers are reusable and must be cleaned and decontaminated prior to reuse according to the instructions below.

### POINT OF USE CARE:

Clean Instrument Stringer as soon as possible after use. If cleaning must be delayed, immerse in an enzymatic solution or water to prevent drying and encrustation of surgical soil. Avoid prolonged exposure to saline to minimize the chance of corrosion. Remove excessive soil with a disposable wipe.

### MANUAL CLEANING:

1. Pre-rinse under cold tap water for one (1) minute to remove gross debris
2. Soak for a minimum of two (2) minutes in a pH neutral detergent, prepared in accordance with the manufacturer's instructions for use.
3. Rinse under cold tap water for one (1) minute.
4. Ultrasonically clean for a minimum of five (5) minutes in a neutral pH detergent, prepared in accordance with the manufacturer's instructions for use.
5. Rinse under cold tap water for one (1) minute.

### AUTOMATED CLEANING:

It may be necessary to manually clean prior to automated processing to improve the removal of adherent soil. Follow the previous instructions for manual cleaning.

1. Run the automatic wash cycle – minimum cycle parameters:
  - 1 minute cold pre-rinse
  - 5 minute enzyme wash at 43° C minimum temperature
  - 1 minute cold rinse
  - 7 minute dry at 90° C minimum temperature

### CLEANING INSPECTION:

Visually inspect before sterilization or storage to ensure the complete removal of soil from surfaces. If soil is still present, re-clean the Instrument Stringer.

### CLEANING AND DISINFECTION:

1. Clean instrument stringers prior to use or re-use.
2. Prepare an enzymatic cleaning solution in accordance with the manufacturer's instructions.
3. Soak soiled instrument stringer according to the instructions for use for the enzymatic solution if necessary to loosen or remove soil.
4. Use a soft bristle brush to remove all visible traces of soil; pay close attention to any hard-to-reach areas and crevices. Use a toothbrush-style brush to remove dried soil such as Key Surgical® N-3000 or N-4000.
5. Rinse the instrument stringer thoroughly with water.
6. Dry stringer after final rinse.
7. Visually inspect stringer before sterilization or storage to ensure the complete removal of soil.

### STERILIZATION:

Instrument Stringers have been validated for sterilization according to applicable international process standards and guidance for the following methods and parameters:

Cycle Type (Steam)	Temperature	Minimum Time – Full Cycle
Gravity	121° C (250° F)	30 minutes
Pre-Vacuum	132° C (270° F)	4 minutes
Immediate Use Pre-Vacuum	132° C (270° F)	3 minutes

100% Ethylene Oxide (EtO)	
Concentration	725 mg/L
Temperature	55° C
Exposure Time	60 minutes
Humidity	50-80%


STERRAD® System and Cycle within the United States	STERRAD® System and Cycle outside United States
STERRAD® 50	STERRAD® 50
STERRAD® 200	STERRAD® 200 Short cycle
STERRAD® 100S	STERRAD® 100S Short cycle
STERRAD® NX Advanced cycle	STERRAD® NX Advanced cycle
STERRAD® NX Standard cycle	STERRAD® NX Standard cycle
STERRAD® 100NX Standard cycle	STERRAD® 100NX Standard cycle

STERIZONE® System	STERIZONE® VP4
-------------------	----------------

It remains the responsibility of the processor to ensure that the processing, as actually performed using equipment, materials and personnel in the processing facility, achieves the desired result. This requires verification and/or validation and routine monitoring of the process.

### DISPOSAL:

Instrument Stringers have a life span and will require replacing if there are any signs of deterioration or loss of functionality. Dispose of product following facility policy for disposal.

 MANUFACTURER: KEY SURGICAL LLC  
8101 WALLACE ROAD / EDEN PRAIRIE, MN 55344 / USA  
PH: 800.541.7995 KEYSURGICAL.COM

REF	CATALOG NUMBER	LOT	LOT NUMBER
-----	----------------	-----	------------