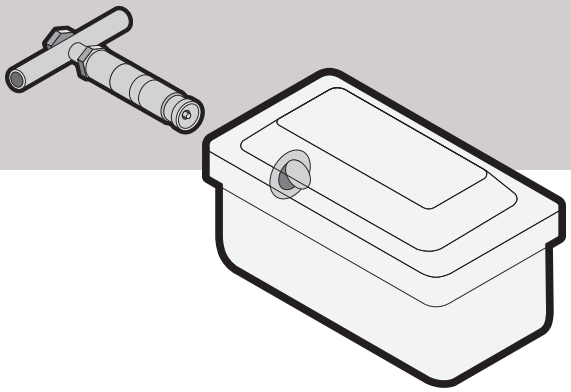
AVIDITY SCIENCE



Valve Care Guidelines:
Affixed-to-Manifold

1) Sanitization

Included are instructions for sanitizing the valves in a tunnel washer or ultrasonic cleaner. Follow the appropriate instructions based on the cleaning equipment used by the facility. *See Avidity Science guide OP-000041 for full details of this process* or contact an Avidity Science representative for more information.

Clean the manifold/integral valves according to the facility's standard operating procedures for rack cleaning.

⚠ **EQUIPMENT DAMAGE:** All manifold drain and vent valves must be opened before cleaning. In the event water is retained in a manifold, and the drain and vent valves are closed during the cleaning and/or autoclaving procedures, steam can be generated which creates pressure that may damage the manifold and/or drinking valve components.

2) Sterilization

Do not use a vacuum cycle deeper than -15 in. Hg when autoclaving drinking valves to prevent deforming of o-rings and diaphragms.

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IMPORTANT: Consult the rack manufacturer's autoclaving specific cations to determine that all rack components can be autoclaved at the cycles specified below. Do not autoclave any rack components that cannot tolerate these autoclave cycles.

Sterilizing While In Service

Sterilize the outside surface of the valves on the manifold following the manufacturer's instructions

- Cold sterilant (see next page for approved cold sterilants)
- Sterilize using a water solution containing a free chlorine concentration no greater than 20 ppm.
- For applications where valves are continuously exposed to free chlorine, use a free chlorine concentration no greater than 10 ppm.

Cleaning of the Valve:

1. Apply the cold sterilant as directed.
2. Follow up the sanitization with a clean water rinse to remove ant residual cold sterilant.

⚠ **EQUIPMENT DAMAGE:** The free chlorination level in the cleaning or sanitizing solution cannot exceed 20 ppm for valve exposure greater than 45 minutes. Exposure longer than 45 minutes to a solution with a free chlorine concentration greater than 20 ppm can damage the drinking valves.

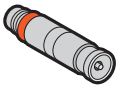
⚠ **EQUIPMENT DAMAGE:** For continuous free chlorine use, do not expose manifold and valves to a free chlorine concentration greater than 10 ppm. Continuous exposure to a water solution with a free chlorine concentration greater than 10 ppm can damage the manifold and drinking valves.

(continued)

2) Sterilization *(continued)*

Do not use a vacuum cycle deeper than -15 in. Hg when autoclaving drinking valves to prevent damaging of shields, o-rings and diaphragms. After the valves are sterilized, place the valves in the autoclave the same way they were placed in the cage washer.

Removing Valves From Service



Drinking valves can be removed from service and sterilized using an autoclave. Autoclaving procedures will vary depending on facility protocols and autoclaving equipment. Follow the autoclave manufacture instructions and heed the cautions they state. General autoclaving cycle recommendation for valves are below.

1. Do not use a vacuum cycle deeper than -15 in Hg
2. Do not exceed a sterilization temperature of 149˚C (300˚F).
3. Dry cycle vacuum pull no greater than -15 in Hg,

The following is a list of APPROVED and NOT APPROVED cold sterilants:

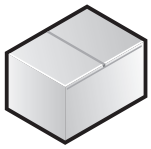
Cold Sterilants Approved by Avidity Science

- Free chlorine solution less than 20 ppm
- 1% Sodium Hydroxide Solution
- 70% Ethanol
- Advanced Hydrogen Peroxide
- Cavicide
- Caviwipes
- Labsan 256 CPQ
- Labsan 710R
- Mikro-Quat
- Quatricide
- Quatricide PV
- Quatricide TB (may leave whitish-yellow deposits on valves and may remove labels on other products)
- Sani-Cloth Plus
- Sor-Klenz
- Sterilex
- Virkon 5

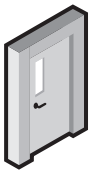
Cold Sterilants NOT Approved by Avidity Science

- Free chlorine solution greater than 20 ppm
- Clidox S

3) Storing Clean, Sterilized Valves



In an appropriate container



Environmentally controlled room

Temperature above freezing 0˚C (32˚F)

Please see full disclaimers and recommendations in our *Sanitizing, Sterilizing and Storage of Rack Manifolds, Drinking Valves and Recoil Hose* operational guide – OP-000041 or contact an Avidity Science representative for more information.