TYLER
Research Corporation
Biomedical Engineering

Product: LPMR-12SS
LPMR-25SS

Material: Stainless steel, silicone or Viton seals and stainless steel screws

The LPMR-12SS and LPMR-25SS series biofilm devices are manufactured from medical grade stainless steel, a durable corrosion-, stain- and rust-resistant steel alloy. The LPMR-SS series devices are ideal for use in industrial and medical applications where corrosion resistance is a concern.

IMPORTANT

Sterilizing LPMR-SS series devices:

1. The fully assembled LPMR-12SS or LPMR-25SS may be autoclaved with biostud holders and biostuds in place (for biostuds that can withstand autoclaving) or separately from the holders and/or biostuds for those (such as acrylic or PVC) that cannot be autoclaved.
2. Attach stainless steel or rigid polypropylene tubing (3/16" OD) to the inlet/outlet ports through the compression fittings and tape the ends of the tubing closed. Place the entire device in an autoclave bag or wrap in surgical towels and tape the package closed with an indicating tape.
3. Refer to the manual of the autoclave in use for proper loading techniques and correct positioning of the items to be sterilized. Sterilize at 121°C for 15 minutes.

LPMR-12SS / LPMR-25SS

Assembly/Disassembly Instructions:

The LPMR-SS series biofilm systems are precision devices consisting of two stainless steel manifold halves, two stainless steel inlet/outlet nipples, stainless steel socket head cap screws connecting the manifold halves, and 12 or 25 stainless steel biostud holders with silicone seals and stainless steel screws.

Assembly or disassembly of the LPMR-12SS or LPMR-25SS devices for cleaning requires a 5/32" hex drive wrench and a #1 Phillips screwdriver.

Disassembly of the LPMR-12SS or LPMR-25SS

1. Remove the biostud holders from the ports by pulling them straight out while gently twisting. If the holders are populated with biostuds, remove the biostuds from the holders by turning the pan head screws counterclockwise using a #1 Phillips screwdriver until the screws disengage, and push on the screws to partially eject the biostuds. Grasp the stems of the partially ejected biostuds with sterile forceps to remove them for analysis.
2. If desired, remove the inlet/outlet compression couplings from the lower manifold by turning counterclockwise with a wrench (for routine cleaning and sterilization this step is not required).
3. Place the LAMR-SS device face down and use a 5/32" hex-drive wrench to remove the socket head cap screws connecting the two manifold halves.
4. Carefully separate the two stainless steel halves and remove the silicone O-ring.
5. Wash all components using only mild detergent and water, and thoroughly rinse with deionized water. Allow to dry before reassembly.

Assembly of the LPMR-12PSF and LPMR-25SS

1. Lubricate all O-rings occasionally with silicone O-ring lube to promote sealing and prolong O-ring life. With the LPMR-SS base upright on a bench, place the large silicone O-ring in the groove surrounding the central channel. Align the top manifold and place it gently onto the base, being careful not to dislodge the O-ring. While holding the halves firmly together, turn the manifold over on the bench to expose the holes for the socket head cap screws. Using a 5/32" hex drive wrench, install and partially tighten the cap screws, leaving a 1mm gap between the top and base of the manifold. Then tighten the screws uniformly, still leaving a tiny gap (approximately 0.1mm) between the manifold halves. Finally, tighten them sequentially just to bring about surface-to-surface contact between the manifold halves**. DO NOT OVERTIGHTEN!** The O-ring is fully compressed and any tightening beyond surface-to-surface contact may stress the threads in the upper manifold, leading to structural failure.
2. If the inlet/outlet compression couplings were removed during cleaning, replace the O-rings in the grooves surrounding the thread if required and carefully screw them into the endport sockets only until surface-to-surface contact has been made to gently compress the retained O-ring. Again, **DO NOT OVERTIGHTEN** as this may lead to structural failure of the insert or manifold.
3. Populate the biostud holders with biostuds of the appropriate material by pushing the stem into the holder until the face is flush with the counterbored end of the holder, and secure the biostuds in the holder by tightening the retaining screws with a #1 Phillips screwdriver.
4. Plug the biostud holders into their ports by gently twisting them while pushing firmly into the holder ports at the labeled positions (A through J or A through Y).