

FLUOR-O-FLO®
PVDF & PTFE Basket and Y-Strainers

O-RING REPLACEMENT

Detailed instructions for replacement of Cap and Cartridge O-rings for Micromold Products PVDF and PTFE Basket and Y-Strainers

Introduction

The standard strainer Cap and Cartridge o-rings are FEP encapsulated silicone rubber

- FEP provides maximum corrosion resistance equal to the extreme corrosion resistance of PTFE, at up to the maximum service temperatures of the strainers. The FEP wall is thin, about 0.010", so it should be handled with care
- Silicone rubber provides the needed elasticity and resilience, again at the needed high temperatures.

Alternate materials are available on request.

These o-rings come in two configurations

- Hollow-core for the Cartridges which allows for the best fit where the standard commercial piping may be slightly out of round
- Solid-core for the Caps where the seal is made to an accurately machined surface.

While these o-rings will normally last indefinitely, care must be taken when a Cartridge is removed. If tools are used around the Cartridges, it is important to avoid contact with the o-rings or sealing surfaces that might abrade, scratch, or otherwise cause damage. The following procedures will guide o-ring replacement.

Replacement Process

1. Carefully remove the existing o-ring. Avoid using sharp tools that might scratch the sealing surfaces of the o-ring groove. For example, pry out the o-ring using a soft plastic bar (e.g., 1/2" diameter PTFE rod), that has a chisel shaped end whose tip is rounded to a 1/64" minimum radius. Micromold can supply these on request.
2. Be sure the o-ring being used for replacement matches the material, size, and configuration as called out in Micromold's Technical Bulletins 4.1-3a & 4.2-3a, PVDF & PTFE Y- and Basket Strainer, Installation and Maintenance Guides which can be found in the Literature Tab of our website www.micromold.com.
3. Prepare a bath of boiling water for heating the o-ring.
4. Immerse the o-ring in the boiling water for several minutes. This softens and increases the elasticity of the FEP encapsulation.
5. Remove the o-ring from the boiling water and, using two hands and moderate force, stretch the hot o-ring slightly. Operators can use nitrile gloves. (In our factory, we use 5 mil gloves.)
6. Fit the o-ring onto the Cap or Cartridge chamfer, and then roll it into the o-ring groove.
7. Place the Cartridge assembly with the installed o-ring into the boiling water. Since the FEP has a "memory", the boiling water causes the o-ring to shrink into its groove.
8. Replace the Cartridge assembly into the strainer and tighten the Cap.
9. Because the surface of the FEP is tougher than the surface of a typical rubber o-ring, it may take time for it to reach a snug fit into any surface imperfections in the groove or its opposing sealing surface. Allow the installed Cartridge to rest for roughly twenty-four hours so it adapts to the imperfections.