



Filtration for a Better Future...

PRE-STARTUP CLEANING PROCEDURE FOR WINEFILTER CARTRIDGES

The following cleaning procedure should be performed prior to initial use of cartridges. This procedure will remove storage solution and condition membranes for production. Failure to follow this recommendation may lead to poor performance and will void cartridge warranty. Please refer to KMS Water Quality Guidelines on reverse side of this document.

Step 1. Fill/Rinse Cycle Neutral pH 70-90°F (20-30°C) 10 min.

Fill the system and then perform 1 rinse using clean water.

Step 2. Alkaline Cycle pH 11.5-12.0 122°F (50°C) 30 min.

Drain and fill system with clean water (122°F/50°C). Add to circulating water:
KOCHKLEEN® 222 or KOCHKLEEN® WA Liquid Cleaner to adjust pH to 11.5-12.0.

Circulate solution at standard pressure and flow conditions for 30 minutes.

Step 3. Drain/Rinse Cycle Neutral pH 70-90°F (20-30°C) 10 min.

Drain, then fill and rinse system with clean water.

Perform 2-3 times until pH is neutral.

Step 4. Acid Cycle pH 2.5-2.8 70-90°F (20-30°C) 15 min.

Fill system with clean water. Add to circulating water:
KOCHKLEEN® 120 Powdered Cleaner to adjust pH to 2.5-2.8.

Circulate solution at standard pressure and flow conditions for 15 minutes.

Step 5. Drain/Rinse Cycle/Water Flux Neutral pH 70-90°F (20-30°C) 5 min.

Drain, then fill and flush system with clean water.

Measure the water flux during the Step 5 rinse cycle.

*For technical assistance, please contact a Cleaning Specialist at (978) 694-7050.
To place an order, please call our Customer Service Department at (978) 694-7005.*

Note: If KOCHKLEEN® products are not readily available, please contact KMS.

KMS WATER QUALITY GUIDELINES FOR CLEANING & DIAFILTRATION

For All Polymeric Membrane and Ion Exchange/Adsorbent Resin Applications

| Parameter | MF/UF | NF/RO & IE/Ads. Resin |
|---|-------------------------|-------------------------|
| Turbidity | < 1.0 NTU | < 1.0 NTU |
| Suspended Solids (see Note 1) | < 5 mg/l | < 1 mg/l |
| Calcium (Ca) | < 10 mg/l | < 5 mg/l |
| Total Hardness (as CaCO₃) | < 60 mg/l | < 30 mg/l |
| Iron (Fe) | < 0.05 mg/l | < 0.05 mg/l |
| Zinc (Zn) | < 0.3 mg/l | < 0.05 mg/l |
| Copper (Cu) | < 0.1 mg/l | < 0.05 mg/l |
| Manganese (Mn) | < 0.05 mg/l | < 0.02 mg/l |
| Aluminum (Al) | < 0.05 mg/l | < 0.05 mg/l |
| Silica, Reactive (as SiO₂) | < 10 mg/l | < 10 mg/l |
| Silica, Colloidal (as SiO₂) | < 1 mg/l | < 0.1 mg/l |
| Silicone | 0 mg/l | 0 mg/l |
| Total Bacteria Count (TBC) | < 1000 per ml | < 1000 per ml |
| E-Coli Count | 0 per 100 ml | 0 per 100 ml |
| Chlorine (as NaOCl) | < 1 mg/l | 0 mg/l |
| D-Limonene (citrus applications only) | < 5 mg/l | 0 mg/l |
| Fats, Oils and Grease | 0 mg/l | 0 mg/l |
| Total Organic Carbon (TOC) | < 1 mg/l | < 1 mg/l |
| pH (standard units) | 6.5 – 7.5 | 6.5 – 7.5 |

1. The water supply must be free from particulate matter such as rust, scale, flakes, sandy and granular material, slurries, scum, algae and any chemical constituents that could foul or damage the membranes.
2. The water pH may need to be adjusted with acid or alkali depending on application and local conditions.
3. KMS membranes are available in many configurations and materials that may be affected differently by various water constituents. Softened water is generally acceptable for cleaning and flushing of polymeric membranes. Please consult with the KMS Process Group for the particular membrane in question.

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For related trademark information, visit www.kochmembrane.com/legal

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