Industrial Element Installation Procedures

PRE-INSTALLATION NOTES

Spiral elements must fit snugly in their vessels in order for them to function properly. If a loose-fitting element is put into operation, unnecessary bypass flow and lower flux may be observed.

A preservative solution is used to prevent microbial growth and membrane dry-out during shipping and storage. While this solution is not classified as hazardous, extra care should be take to limit exposure.

Recommended Equipment:

- Sharp knife or scissors
- Gloves
- Safety glasses
- Dust mask

INSTALLATION PROCEDURES

1. Remove the element from the plastic bag and take this opportunity to do a thorough visual examination of the element. There should be no mold, dust, or dirt anywhere on the element.

2. Prepare an element loading diagram to document the serial number(s), date, element model number, location within the system, and any other required information for future reference.

3. Install the new O-ring supplied with your element onto the top cap and lubricate them with glycerine. A vial of glycerine is included with the shipment.

4. Insert the element into the pressure vessel. It should fit snugly.

5. O-rings should be well lubricated prior to installation with a non-petroleum based lubricant such as glycerine or any mild household liquid detergent.

6. A sufficient flush should be performed on all elements prior to start-up. Clean water at 122°F (50°C) should be used in a non-recirculating mode for at least 10 minutes after installation. This should remove residual preservative solutions, and glycerine.

7. The element is now ready for start-up. Feed and/or recirculation pumps should "ramp-up" RPMs slowly to prevent the element from being shocked. Varial Frequency Drives (VFDs) are recommended for all feed and recirculation pumps to safely control pump RPMs.

8. Synder Filtration recommends the collection of daily performance data of the system and element performance. The following data should be collected at least daily and is required in the event of a warranty claims:

    1) Flows (feed, permeate, concentrate)
    2) Pressures (feed, permeate, concentrate)
    3) Operating temperatures (production and CIP)
    4) Hours of operation (production and CIP)
    5) Other cleaning parameters (pH, time, chlorine PPM exposure)
    6) Unexpected events (system upsets, unscheduled shutdowns, etc)

4941 Allison Parkway, Vacaville, CA 95688
T: +1 (707) 451-6060 | F: +1 (707) 451-6064
sales@synderfiltration.com | www.synderfiltration.com