

Aquaporin Inside® DWRO™ Element Test Setup

for Aquaporin Inside® DWRO™ residential elements



PRE-FLUSHING

- Before testing the membrane performance, the DWRO™ element must be flushed for 30 min using RO water.
- During flushing, permeate and retentate must be drained.
- Flushing must be conducted at operating conditions stated below.

FEED WATER PREPARATION

- Prepare feed water with 250 ppm NaCl (min. 20 liters / 5 gallons per element).
- Feed water temperature must be 25 °C (77 °F) before and during testing.
- Feed water pH must be 7 before and during testing

TEST PARAMETERS

Recovery

- 1812 elements are tested at 15 % recovery rate
- 3012 elements are tested at 40 % recovery rate

Pressure

- 1812 elements are tested at 60 psi (4.1 bar)
- 3012 elements are tested at 80 psi (5.5 bar)

Flow

- Flow rate is set according to the defined recovery.
- Permeate flow is monitored by weight measurement using a balance and timer.

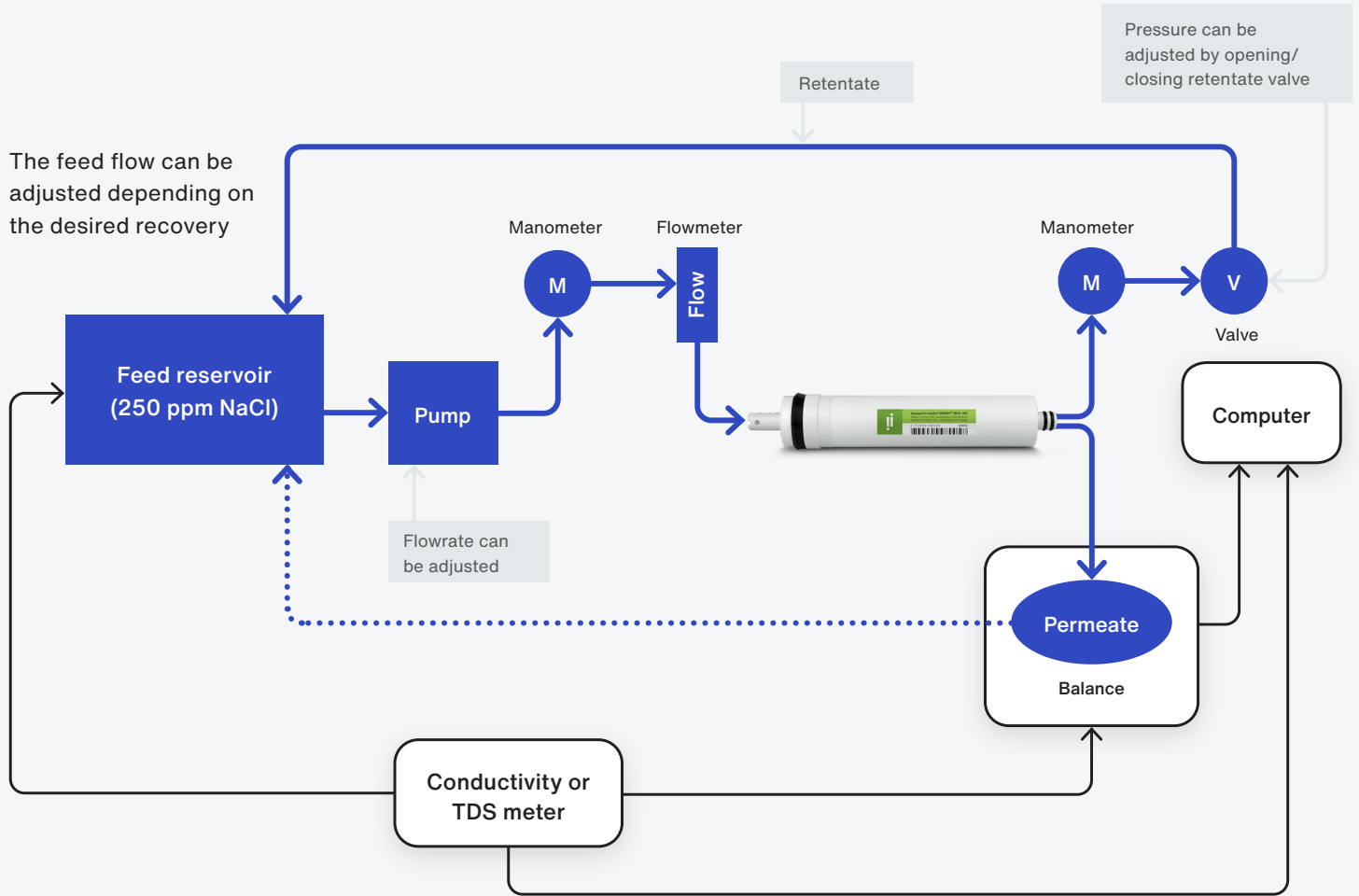
Measurements

- Permeate weight and electrical conductivity (or TDS) must be recorded after 30 min of operation for min. claimed performance and after min. 24 hours of operation for typical claimed performance.
- Feed electrical conductivity (or TDS), pressure, and flow rate must be recorded during sampling.

Permeate and retentate are returned to the feed reservoir during testing and after each measurement.

RESULTS

- Purified water flow rate (L/h or GPD) is calculated from the collected permeate weight divided by time.
- NaCl rejection (%) is calculated from the difference in electrical conductivity or TDS between the measured feed and permeate.



Blue lines are water flows

Black lines are data logging

Dotted blue line is recirculation of permeate (between measurements)

Disclaimer:

This document is intended as a guideline only for quality control testing of Aquaporin Inside® residential DWRO™ elements. For more information, please contact your Aquaporin representative or aquaporin@aquaporin.com.

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