



FILMTEC Membranes

System Design: System Performance Projection

Comparing Actual Performance of FILMTEC Elements to ROSA Projection

ROSA is a tool used to estimate stabilized performance for a specific RO or NF system under design or actual conditions. This projected performance is based on a nominal performance specification for the FILMTEC™ element(s) used in that system. A fouling factor of 1 in the projection is used to calculate the performance of new elements with exactly nominal flow rate. A fouling factor < 1 should be applied when making a design for long-term operation.

In a real system, the elements may have a flow performance variation of +/-15% of the nominal value, or whatever variation is specified for this element type. Also the salt rejection of an individual element may be higher or lower than the nominal salt rejection (but not lower than the minimum salt rejection). Therefore, the measured stabilized performance is unlikely to exactly hit the projected performance, but for systems with more than 36 new elements it should come close.

The actual fouling factor of a stabilized new RO system with at least 36 elements should range between 0.95 and 1.05. The actual measured TDS of the permeate should be no higher than about 1.5 times the calculated TDS.

For systems with only one or a few elements, the deviation of the measured actual performance from the projected performance may become as large as the specified element performance variation.

If the measured performance does not match close enough with the projected performance, go to *Troubleshooting section (Section 8)*, or visit the [troubleshooting guide](#) in our website.

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For more information about FILMTEC membranes, call the Dow Liquid Separations business:

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Notice: The use of this product in and of itself does not necessarily guarantee the removal of cysts and pathogens from water. Effective cyst and pathogen reduction is dependent on the complete system design and on the operation and maintenance of the system.

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