

VONTRON INDUSTRIAL MEMBRANE ELEMENTS

XLP SERIES RO MEMBRANE ELEMENTS

Brief Introduction

XLP series of extremely low pressure aromatic polyamide compound membrane elements are newly developed by Vontron Technology Co. and can operate under ultra low pressure to reach as high a permeate flow and salt rejection as regular low-pressure membrane elements can and operate under approximately half the operating pressure of regular low-pressure composite membranes and achieve a salt rejection rate of up to 99.0%, which can decrease the investment costs for such relevant components as pumps, piping, vessels, etc. including the operating cost for the RO system, thus increasing the economic efficiency.

Being suitable for the desalination of water sources with low salinity not requiring high salt rejection such as surface water, underground water, tap water and municipal water, etc. which has a salt concentration lower than 1,000 ppm, XLP series of membrane elements are particularly applicable to the second-pass desalination within a two-pass RO system.

Specifications

Model	Active Membrane Area ft ² (m ²)	Average Permeated Flow GPD (m ³ /d)	Consistent Rejection Rate (%)	Minimum Rejection Rate (%)
XLP11-4040	85(7.9)	2000(7.6)	98.0	97.5

Testing Conditions: Testing Pressure.....100 psi (0.69Mpa)

Temperature of Testing Solution25 °C

Concentration of Testing Solution (NaCl)..... 500ppm

pH Value of Testing Solution7.5

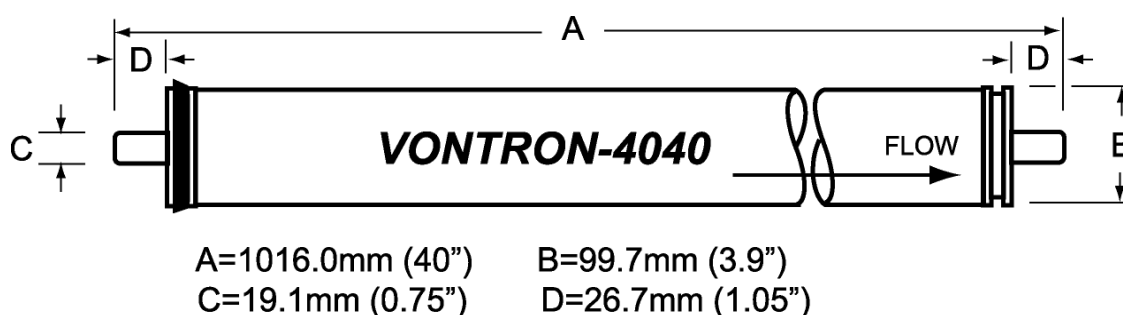
Recovery Rate of Single Membrane Element....15%

Extreme Operation Conditions

Max. Working Pressure.....	600psi(4.14Mpa)
Max. Feed water Flow.....	16gpm (3.6 m ³ /h)
Max. Feed water Temperature.....	45℃
Max. Feed water SDI.....	5
Residual chlorine Concentration of Feed water.....	<0.1ppm
pH Range of Feed water during Continuous Operation.....	3~10
pH Range of Feed water during Chemical Cleaning.....	2~12
Max. Pressure Drop of Single Membrane Element.....	15psi (0.1Mpa)

Dimensions of Membrane Element

All dimensions are shown in: millimeter (inch).



Important Information

1. Any specific application must be limited within the extreme operating conditions. We strongly recommend you to refer to the latest edition of technology manual and design guide prepared by Vontron Technology Co., Ltd., or consult experts proficient in membrane technology. In case the customer fails to follow the operating conditions as specified in this manual, Vontron technology Co., Ltd. will assume no liability for all results.
2. The permeate flow listed in the table is the average value. The permeate flow of a single membrane element is within a tolerance not exceeding $\pm 15\%$ of the nominal value.
3. All wet-type membrane elements have been strictly tested before leaving the factory, and have been treated with the solution of 1.0% sodium hydrogen sulfite (an antifreeze solution of 10% propanediol required in winter) for storage purpose, then vacuum sealed in a plastic bag and further packed in carton boxes. In order to prevent the breeding of microbes during short-time storage, transportation and system standby, we recommend you to soak the

membrane elements with protective solution (prepared with RO filtered water) containing 1.0% sodium hydrogen sulfite (food grade quality).

4. Discard the RO-filtered water produced during the first one hour after system start-up.
5. During storage time and run time, it is strictly prohibited to dose any chemical that may be harmful to the membrane elements. In case of any violation in using this kind of chemical, Vontron Technology Co. assumes no liability for any outcome incurred.

Points of Attention

1. All data and information provided has been obtained from long-term evaluation by Vontron Technology Co. This data and information is accurate and effective. Vontron Technology Co. assumes no liability for any consequences caused by user's failure in abiding by the conditions specified in this manual for the use or maintenance of membrane products. It is strongly recommended that the user shall strictly abide by the requirements for design, use and maintenance of products and keep relevant records.
2. Along with technical development and product review, the information contained herein will be subject to modification without prior notification. Please keep an eye on the website of Vontron Technology Co. for any product updates.