

VONTRON FR11-4040 Membrane Element

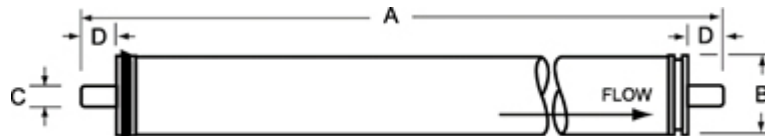
Brief Introduction

FR11-4040 RO Membrane Element utilizes specialized manufacture technique that can improve the hydrophilicity, electric charge and roughness of its surface, thus reducing the breeding and adsorption of pollutants and microbes on membrane surface.

FR series of fouling resistant membranes normally suitable for treatment of complex water source with TDS less than 10000 ppm. It is mainly used for purification of surface water, mining waste water, municipal reclaimed water, industrial waste water, RO brackish water, etc.

Model	Active Membrane	Permeate Flow GPD(m ³ /d)	Stable Rejection %	Feed Spacer
	Area ft ² (m ²)			Thickness mil
FR11-4040	90 (8.4)	2200 (8.3)	99.5	34
Testing Conditions	Operating pressure 225 psi (1.55Mpa)			
	Temperature at 25°C			
Testing Conditions	Tested at 2000mg/L NaCl solution			
	pH 7.0 ± 0.5			
Testing Conditions	Recovery rate at 15%			
	Operation		Maximum operating pressure	
		600psi (4.14Mpa)		
		Maximum feedwater flow		
		75gpm (17 m ³ /h)		
		Maximum feedwater temperature		
		45°C		
		Maximum feedwater flow SDI ₁₅		
		5		
Limits & Conditions		Allowed pH range for feedwater in operation		
		2~11		
		Allowed pH range for chemical cleaning		
		1~13		
		Maximum concentration of free chlorine		
		<0.1ppm		
		Maximum pressure drop per element		
		15psi (0.1Mpa)		

Size of Membrane Element: 1.0 inch =25.4 mm



Specification	A/mm (inch)	B/mm (inch)	C/mm (inch)	D/mm (inch)
4040	1016.0 (40)	99.7 (3.9)	19.1 (0.75)	26.7 (1.05)

Notice:

1. All data and information provided in this manual have been obtained from long-term experiment by Vontron. We confirm the effective and accuracy of the data. We assume no liability for any consequences of user's failure in abiding the conditions specified in this manual in use or maintenance of membrane products. It is strongly recommended that the user shall strictly abide the designed use and maintenance requirements and keep relevant records.
2. The permeate value listed in the table is the average value. The permeate flow of single membrane element is 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 1.0% sodium hydrogen sulfite (10% glycerin antifreeze required in winter) for storage purpose, then sealed with plastic bag in vacuum, and further packed in carton boxes.
4. The membrane used should remain wet after being used; In long term suspension, to prevent the breeding of microbes, soak the membrane elements with protective solution is highly recommended, the solution (prepared with RO filtered water) containing 1.0% sodium hydrogen sulfite (food grade).
5. Operate low pressure flushing for 15-25 minutes of first use, high pressure flushing for 60-90 minutes when first use (Permeate flow no less than 50% of designed flow). Discard all the permeate and concentrated water produced during the first one hour after system start-up.
6. During storage and operation period, it is strictly prohibited to add any chemicals that may be harmful to membrane elements. In case of any violation in adding chemicals, Vontron assumes no liabilities for any damages incurred.
7. Along with technical development and product renovation, all information will be subject to modification without prior notification. Please keep notice of our website for any updates of the product.