KOCH MEMBRANE SYSTEMS

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FLUID SYSTEMS® ROGA® - UF 8" ELEMENTS

Cellulose Acetate, Ultrafiltration Elements

PRODUCT DESCRIPTION

Membrane Chemistry:	Cellulose acetate
Membrane Type:	ROGA®-UF membrane
Nominal Molecular Weight Cutoff*:	8,000 Dalton
Construction:	Spiral wound with fiberglass outerwrap
Applications:	RO pretreatment, waste pretreatment, chlorine tolerant membrane for water supply of potable quality Feed spacer thickness: 31 mil (0.8 mm)

* Defined by ASTM Standard Test Method for Molecular Weight Cutoff Evaluation of Flat Sheet Ultrafiltration Membranes, Method E-1343-90.

SPECIFICATIONS

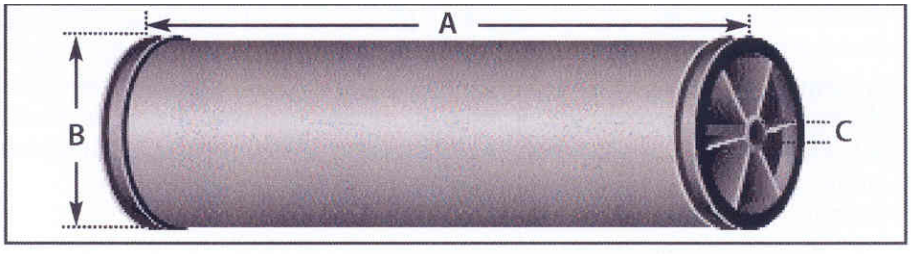
Part Numbers	Model	Membrane Area ft^2 (m^2)
8822210	ROGA 8040-UF-325	325 (30.2)

Note: 100% of elements are quality assurance tested with a vacuum decay test

OPERATING AND DESIGN INFORMATION

Typical Operating Pressure:	50-75 psi (345 - 515 kPa)
Maximum Operating Pressure:	150 psi (1,035 kPa)
Maximum Operating Temperature:	104°F (40°C)
Maximum Cleaning Temperature:	104°F (40°C)
Maximum Continuous Free Chlorine:	1 mg/L
Allowable pH – Continuous Operation:	3 – 7
Allowable pH – Short Term Cleaning:	2.5 – 8
Maximum Differential Pressure Per Element:	10 psi (69 kPa)
Maximum Differential Pressure Per Vessel:	60 psi (414 kPa)
Maximum Feed Turbidity:	1 NTU
Maximum Feed SDI (15 minute):	5

NOMINAL DIMENSIONS



Model	A inches (mm)	B inches (mm)	C inches (mm)	Weight lbs (kg)	Part Numbers Interconnector	O-ring	Brine Seal
ROGA 8040-UF-325	40 (1,016)	8 (203.2)	1.50 (38.1)	44 (20)	0035270	0035478	0035705

Operating Limits:

- **Operating Pressure**: Maximum operating pressure is 150 psi (1,035 kPa). Typical operating pressure for ROGA® UF-325 systems is in the range of 50 and 75 psi (345 and 515 kPa). Actual operating pressure is dependent upon system flux rate (appropriate for feed source) as well as feed salinity, recovery and temperature conditions.
- **Permeate Pressure**: Permeate pressure should not exceed feed-concentrate pressure by more than 5 psi (34 kPa) at any time (on-line, off-line and during transition).
- **Differential Pressure**: Maximum differential pressure is 10 psi (69 kPa) for a 40" (1,016 mm) long element. Maximum differential pressure for any length pressure vessel is 60 psi (414 kPa).
- **Temperature**: Maximum operating temperature is 104˚F (40˚C). Maximum cleaning temperature is 104˚F (40˚C).
- **pH**: Allowable range for continuous operation is pH 3-7. Allowable range for short term cleaning is pH 2.5-8.
- **Turbidity and SDI**: Maximum feed turbidity is 1 NTU. Maximum feed Silt Density Index (SDI) is 5.0 (15 minute test). Experience has shown that feedwater with turbidity greater than 0.2 NTU generally results in frequent cleanings.
- Recovery: Maximum recovery is site and application specific. In general, single element recovery is approximately 11%. Recovery limits should be determined using KMS ROPRO program.

Chemical Tolerance:

- Chlorine: Maximum allowable continuous concentration of free chlorine or similarly active oxidizing agents such as iodine, bromine and ozone is 1 mg/l free chlorine equivalent.
- Feedwater: pH should be adjusted to a practical value of approximately 5.7 to minimize membrane hydrolysis. Above pH 6 these effects may become significant and may reduce the effective life of a membrane.

Lubricants:

For element loading, use only approved silicone lubricant, water, or glycerin to lubricate O-rings and brine seals. The use of petroleum based lubricants or vegetable based oils may damage the element and void the warranty.

Service and Ongoing Technical Support:

KMS has an experienced staff of professionals available to assist endusers, and OEM's for optimization of existing systems and support with the development of new applications. Along with the availability of supplemental technical bulletins, KMS also offers a complete line of KOCHTREAT® and KOCHKLEEN® RO pretreatment and maintenance chemicals.