

FILPURE ULP SERIES High Rejection Brackish Water RO Elements

Features & Description

- Filpure ULP series RO modules are introduced to meet the durable/robust poly amide membrane requirements and it can be operated non challenging conditions. The advantage of Filpure modules are steady & high rejection rate ,high product flow rate ,low operating pressure and long membrane life . Filpure BW modules are suitable for treating bore-well water and surface water for domestic and industrial applications including food and beverages . These modules have high membrane life & fouling resistance if operated under recommended operating conditions.

Product Specifications

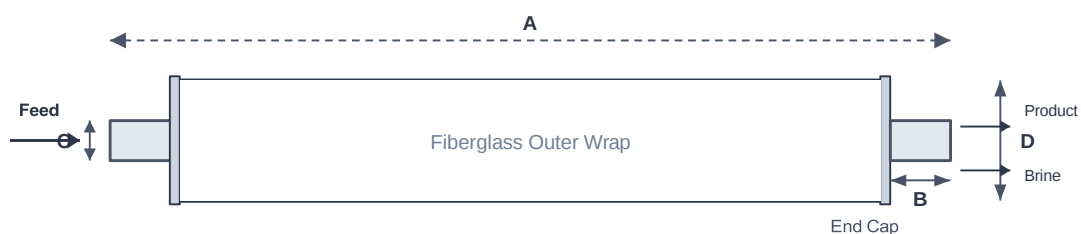
Model	Feed Spacer (mil)	Permeate Flow <i>GPD (m³/d)</i>	Min. Salt Rejection (%)	Recovery (%)	Stabilized Rejection (%)
ULP SERIES 4040	34	1,585 (6.0)	95.5%	15%	97.5%
ULP SERIES 8040	34	6,340 (24.0)	95.5%	15%	97.5%

Test Conditions: Permeate flow and salt rejection figures are evaluated under the following standardized baselines: 1,000 ppm NaCl, 77°F (25°C), 30% recovery, pH 8, and an applied testing pressure of 225 psi. Individual flow variances can range within +/-15%.

Typical Solute Rejection Profile (%)

Target Solute Element	NH_4^+	NO_3^-	SiO_2	Boron
Typical Rejection Rate	98.2%	97.2%	97.7%	79.0%

Dimensional Data & Specifications



Product Model	A Inches (mm)	B Inches (mm)	C Inches (mm)	D Inches (mm)
ULP SERIES 4040	40.00 (1,016)	1.06 (27)	0.75 (19) ID	3.9 (99)
ULP SERIES 8040	40.00 (1,016)	1.122 (28.5)	1.122 (28.5) ID	7.9 (200)

Operating Limits & Parameters

Membrane Base Material	Polyamide Thin-Film Composite
Maximum Operating Temperature	113°F (45°C)
Maximum Feed Flow Rate	3.7 m³/hr (4040) / 16.0 m³/hr (8040)
Maximum Feed Water SDI (15 min)	5.0
pH Operating Range Continuous	3.0 – 11.0
pH Range during Chemical Cleaning	2.0 – 12.0
Maximum Element Pressure Drop	15 psi (1.0 bar)
Free Chlorine Tolerance	< 0.1 ppm
Maximum Operational Pressure	600 psi (41 bar)
Operating Pressure (1K Feed TDS)	7- 9 kg/cm²

Oxidizer Warning: The presence of free chlorine or alternate oxidizing agents triggers premature membrane breakdown and degradation. Residual oxidants must be completely neutralized via structured pre-treatment before entry to avoid voiding warranty coverages.

Operational & System Guidelines

- Avoid excessive hydraulic shocks and radical pressure shifts during initial system start-up stages.
- Ramp operational feed pressure up carefully over a minimum timeline of 60 seconds to cross into designated stream levels safely.
- Cross-flow feed velocity targets across elements should be built up progressively over a 20-second threshold.
- Completely discharge and reject permeate volumes gathered during the first full hour of initial run operations.
- Maintain membrane elements in a completely moist condition at all times post wetting.
- For short or extended shut-downs stretching past 24 hours, preserve active system arrays within a 1% Sodium Metabisulfite preservative solution loop to inhibit biological growth activity.