

# Easy Column Care and Use

- Completely regenerate by flushing with water overnight
- Restore to non-denaturing conditions quickly and easily
- Adsorbed materials are easily removed by washing with sodium phosphate buffer at pH 3.0
- Strongly retained proteins may be removed by washing with acetonitrile or methanol without compromising performance

## Technical Data and Specifications

	BioSep SEC-s2000	BioSep SEC-s3000	BioSep SEC-s4000
<b>Resin Type</b>	Silica	Silica	Silica
<b>Particle Size (µm)</b>	5	5	5
<b>Pore Size (Å)</b>	145	290	500
<b>pH Range</b>	2.5 - 7.5	2.5 - 7.5	2.5 - 7.5
<b>Maximum Backpressure (psi)</b>	1,500	1,500	1,500
<b>Typical Backpressure (psi)</b>	800	800	700
<b>Efficiency</b> (minimum number theoretical plates 300 x 7.8 mm)	30,000	30,000	25,000
<b>Maximum Flow Rate</b>	This is a function of pressure. Columns can withstand up to 1,500 psi, but avoid sudden pressure changes.		
<b>Column Hardware</b>	Standard: 316 stainless steel column with stainless steel frits. Titanium frits available.		
<b>Maximum Temp.</b>	50 °C		
<b>Maximum Salt Conc.</b>	1 M		
<b>Denaturants</b>	0.5 % SDS, 6 M Guanidine HCl, or 8 M urea		
<b>Regeneration</b>	After exposure to denaturants, wash with water overnight.		
<b>Max. Organic Modifier</b>	Up to 100 % CH <sub>3</sub> CN. Start with 100 % H <sub>2</sub> O, linear gradient to 100 % CH <sub>3</sub> CN over 50 min. Up to 90 % CH <sub>3</sub> CN, 10 % DMSO or 500 mM β-mercaptoethanol.		
<b>Cleaning Procedure</b>	General protein removal: wash with 30 mL of 0.1 M NaH <sub>2</sub> PO <sub>4</sub> , pH 3.0. Hydrophobic protein removal: use acetonitrile gradient. Strongly adsorbed proteins: wash with 30 mL of 0.5 % SDS or 6 M Guanidine thiocyanate or 10 % DMSO.		
<b>Storage</b>	Overnight storage: run mobile phase at 0.2 mL/minute. Prolonged storage: use 0.05 % NaN <sub>3</sub> in H <sub>2</sub> O or 10 % methanol in H <sub>2</sub> O.		
<b>Column Protection</b>	Use of a SecurityGuard is recommended to prolong column lifetime.		