

**ProPac WCX-10, ProPac SCX-10, ProPac SCX-20
and MAbPac SCX-10 Columns**

Quick Start Guide

Instrument Requirements	<ul style="list-style-type: none"> • Inert or Bio-compatible (Stainless Steel (SST)-Free) System recommended. • For SST systems, periodic passivation must be performed to remove metal build up. • Please refer to the column manual (see links below) for details.
Equilibration	<ul style="list-style-type: none"> • Flush out the shipping solvent from the column until baseline is stable. • Equilibrate with 5-10 column volumes of Buffer A (20mM or higher ionic strength buffer). • Always re-equilibrate with at least 5 column volumes of Buffer A between injections.
Mobile Phase Buffer	<ul style="list-style-type: none"> • Typically use MES (pH 5.5-6.5) or ACES (pH 6.0-7.0) or other GOOD's buffers. • Always filter your mobile phases through 0.22 µm membrane filters before use. • Do not use cationic detergents – they cause irreversible damage to the column. • Non Ionic/Anionic detergent concentration should be <0.1%. • Use of organic solvents should be limited to column cleaning procedures. • When using organic solvents as part of mobile phase, keep its concentration CONSTANT at all times (<i>this includes washing and storage solution</i>).
pH	<ul style="list-style-type: none"> • pH range is 2-12, however a pH of 3-11 range is recommended for longer lifetime. • Buffer pH should be at least 1 pH unit below the pI of the protein of interest. • Choose appropriate buffer for the required pH (buffer pKa ± 1 unit).
Ionic Strength	<ul style="list-style-type: none"> • Minimum 20mM NaCl, or equivalent ionic strength is required for usage and storage. • Concentration of NaCl (or other salt) should not exceed 1M.
Temperature	<ul style="list-style-type: none"> • Operating range is up to 60 °C. • Recommended temperature is 30°C. • Ensure temperature is compatible with sample stability.
Loading Capacity	<ul style="list-style-type: none"> • Typically up to 100 µg of protein on 4 x 250 mm columns, depending on sample quality and matrix.
Method Validation	<ul style="list-style-type: none"> • We recommend method validation using at least 3 columns from 3 different manufacturing lots.
Column Storage	<ul style="list-style-type: none"> • Mobile phase suitable for short-term storage only. • For longer-term storage (>3 days) the addition of 0.1% sodium azide is recommended to prevent bacterial growth.

Flow rate and pressure operating limits:

Column Format	Recommended Flow Rates	Maximum Pressure Limit
10µm, 4 x 250 mm	0.5 to 1.0 mL/min	3,000 psi
10µm, 4 x 150 mm	0.5 to 1.0 mL/min	3000 Psi
10µm, 2 x 250 mm	0.1 to 0.3 mL/min	3,000 psi
RS, 5µm, 4.6 x 250 mm	1.0 to 1.3 mL/min (UHPLC instrumentation required)	7,000 psi
RS, 5µm, 4.6 x 150 mm	1.0 to 2.0 mL/min (UHPLC instrumentation required)	7,000 psi
RS, 5µm, 4.6 x 50 mm	Up to 2.0 mL/min	7,000 psi
RS, 5µm, 2.1 x 250 mm	Up to 0.32 mL/min (UHPLC instrumentation required)	7,000 psi
RS, 5µm, 2.1 x 150 mm	Up to 0.42 mL/min (UHPLC instrumentation required)	7,000 psi
RS, 5µm, 2.1 x 50 mm	Up to 0.42 mL/min	7,000 psi
5µm, 4 x 250mm (PEEK)	0.5-0.7 mL/min	5,000 psi
5µm, 4 x 150mm (PEEK)	0.5-1.0 mL/min	5,000 psi
5µm, 4 x 50mm (PEEK)	Up to 2 mL/min	5,000 psi
3µm, 4x 50 mm (PEEK)	0.5 to 0.8 mL/min	5,000 psi

Column User Manual:

The column manuals are available at: www.thermoscientific.com. In 'Resources' find "Operations & Maintenance" search using the product name or part number. The manuals will provide more information on:

- Method development
- Column operating limits
- Column washing procedures and troubleshooting

Further Support:

Contact technical support at:
www.thermoscientific.com/chromexpert

