



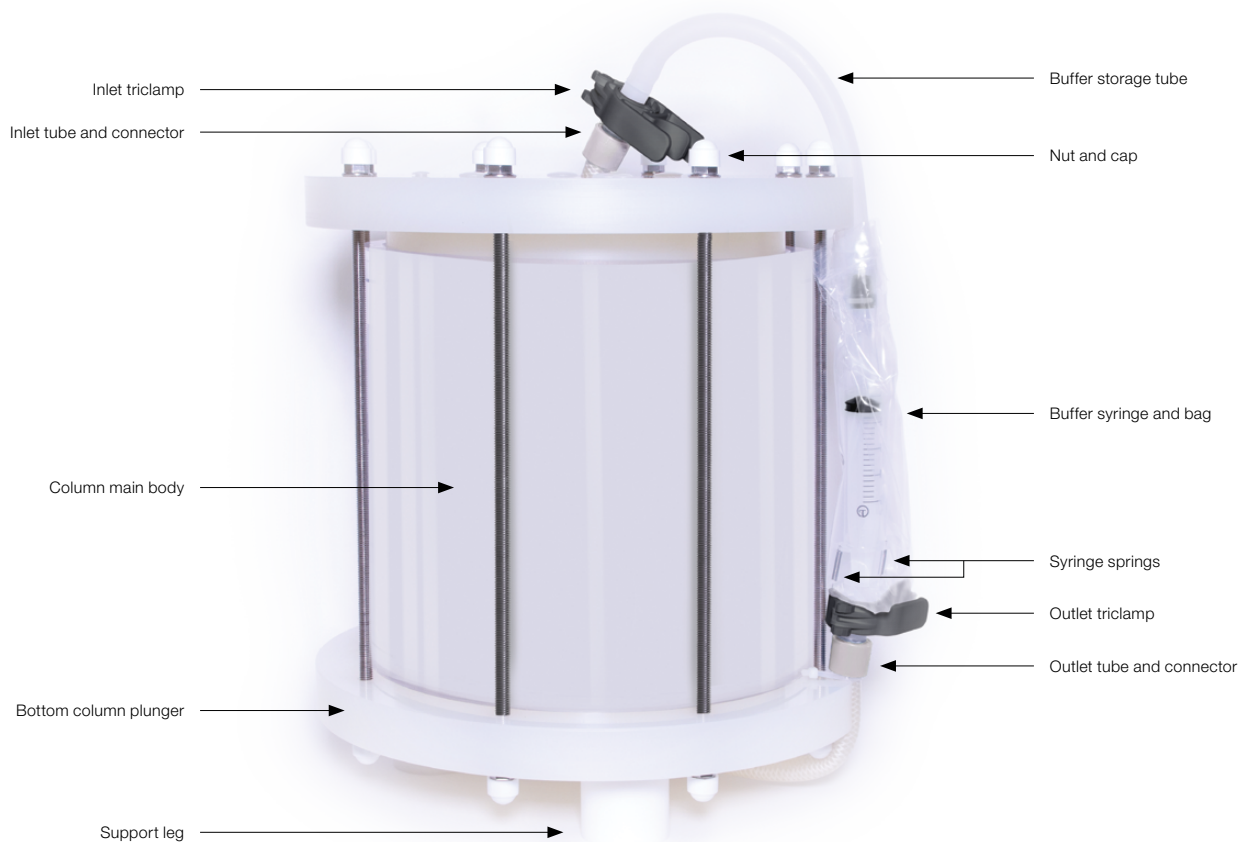
Foresight Pro Column

Quick Guide

Product Information

Foresight Pro Columns are good manufacturing practice (GMP) ready columns specifically designed to perform chromatographic purification of biological molecules in GMP production processes, such as a broad range of purification and polishing applications for vaccines, monoclonal antibodies, and recombinant proteins. These prepacked disposable columns offer more cost-effective solutions than traditional “pack in place” glass or stainless steel columns. A broad range of column diameters and bed heights can be selected. The columns have a sanitary design with minimal dead space and effective cleanability. The columns have a working pressure rating of 3 bar and storage and working temperatures of 2°C to 25°C. For applications that require higher ratings, contact us at process@bio-rad.com.

Hardware Design



Safety Guidelines

Cautions and Warnings

The following symbols highlight recommendations and warnings regarding the handling of these columns.

Special Attention Symbols

Warning Symbol Warning indicates possibility of severe personal injury or equipment damage if the instructions are not followed.



General Safety Warning

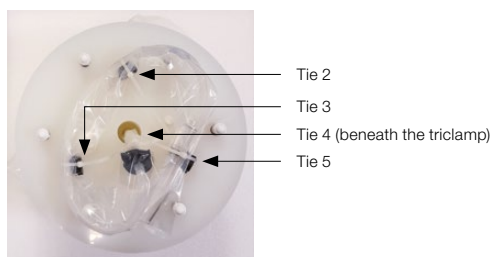
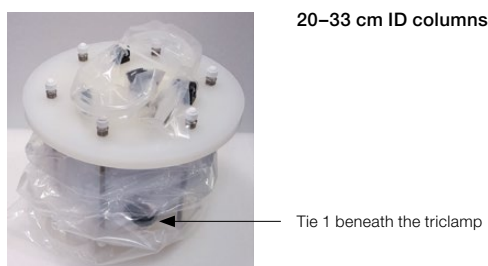
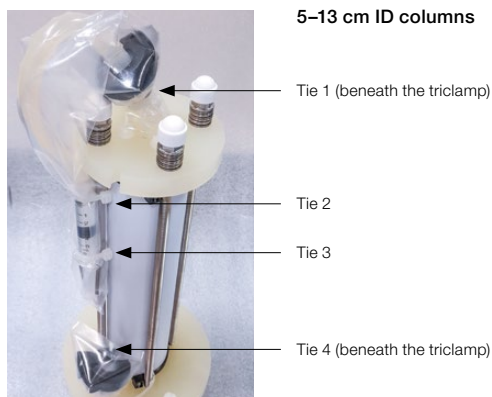
Place the column in a vertical position with the legs securely on the surface. Secure the column on the cart before moving to avoid damage caused by accidental tipping.

These prepacked columns are GMP ready — please follow your standard operating procedure (SOP) Guidelines for handling GMP ready products.

Connecting the Column to the Chromatography System

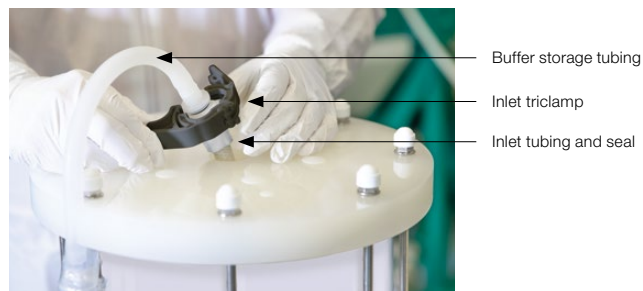
Foresight Pro Columns can be used with various chromatography systems, including NGC 10 Chromatography Systems, NGC 100 Chromatography Systems, and all ÄKTA Systems.

- 1 For 5–13 cm ID columns, carefully cut zip ties 1–4. For 20–33 cm ID columns, carefully cut zip ties 1–5, located on the side of the column and on the top plate.



Warning: Avoid damaging the tubes.

- 2 Carefully remove the protection bags around the inlet and outlet fitting.
- 3 Hold the flexible buffer storage tubing at the top of the column upwards and gently tap the upper and lower sides at the inlet tubing. This will allow the air bubbles in the inlet tubing in the column to escape.
- 4 Gently squeeze the buffer storage tubing. This procedure avoids sucking air into the inlet tubing.



- 5 To disconnect the top triclamp, first unhook the springs from the top shaft of the syringe, then remove the top triclamp. Now remove the buffer storage tubing from the inlet tube. Avoid trapping air.



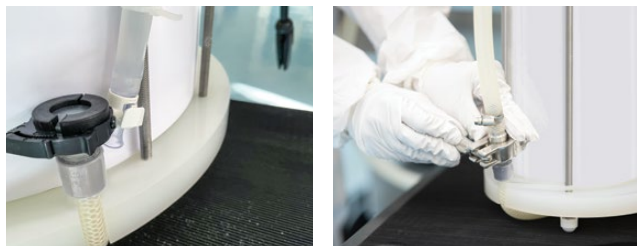
- 6 Before connecting the column, set the chromatography system to bypass the column. Start a slow flow based on your setting to prime the system tubing with the running buffer. This ensures removal of any trapped air bubbles.
- 7 We recommend spraying triclamps with 70% ethanol prior to connection. Connect the column to the chromatography system using a drop to drop method to ensure a wet connection using standard sanitary connection hardware.



Warning: Monitor your pressure while system is running at a low flow. Column operating pressure should not exceed 3 bar.

- 8 Remove the column outlet triclamp and the end cap, then connect the outlet to your chromatography system using a triclamp.

9 The column is now ready to use.



Column Conditioning

Removing the Storage Buffer

Equilibrate the column at a flow rate of 100–200 cm/hr with at least 5 column volumes (CV) of buffer to remove the storage buffer. The column can be safely operated up to a backpressure of 3 bar; high pressure alarms can be set accordingly.



Warning: Whenever the column is in use, ensure that it is always connected to a buffer reservoir to avoid drying out the bed. Alternatively, the bottom outlet can be sealed.

Column Storage after Use

Refer to the Foresight Pro Column user guide ([bulletin 3273](#); bio-rad.com/ForesightProGuide) for storage information.

Visit bio-rad.com/ForesightProColumn for more information.

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