



Chrom-LinX[®] Auto

Chromatography Column



Chrom-LinX® Auto Chromatography Column

The Chrom-LinX® Auto Chromatography Columns are designed for downstream purification of biopharmaceuticals. They are operated by automated control software (with the BioLink Packing-LinX® column packing workstation), to minimize the cumbersome manual operation of conventional columns. Column packing with the BioLink Slurry-LinX® series slurry tank allows the entire process to remain in a closed environment for most of the time, minimizing the risk of exposure and contamination of the chromatography resin and homogenizing solution.

Chrom-LinX® Auto Chromatography Columns have been carefully designed and proven to provide excellent performance with most of the different types of resin. They are compatible with the ChromaX® chromatography resins from BioLink, and perform very well when filled with Chromstar FF and MaXtar series resins of high rigidity and flow rate. The software in the workstation presets the packing method of relevant resins, which can simplify the packing process and improve the production efficiency.



Overview

Chrom-LinX® Auto Chromatography Column works in a low-pressure and axial compression mode as a standardized equipment with ID of 450, 600, 800, 1000, 1200 mm and column tube height of 700 mm (1000 mm customizable), making itself suitable for the manufacturing of various types and scales of bioproducts.

The exhaust structure of the columns has been carefully designed and tested to allow for easy exhaust and cleanliness of the column head, reducing cleaning and maintenance steps. The design of the column head distribution plate ensures uniform distribution of liquid flow. The packing process is controlled by software in the column packing workstation, which enables intelligent loading and unloading, as well as automated packing, dismantling and maintenance operations through programming, ensuring the stability and reproducibility of packing. A pre-homogenized resin is pumped into the column through the inlet at the column bottom. The column head is driven upwards by a servo motor, and after pumping in a sufficient amount of homogenate, the column head moves downwards to pack the resin. The speed of the column head can be set by software, and the accuracy of the movement distance can reach 1mm. The height of the column bed can be precisely controlled so that the resin forms a uniform and stable bed structure within the column.

Column Specification

Specification	Chrom-LinX 450/700	Chrom-LinX 600/700	Chrom-LinX 800/700	Chrom-LinX 1000/700
Column inner diameter (mm)	450	600	800	1000
Column bed height (cm)	5-30	5-30	5-30	5-30
Column head lift height (cm)	0-68	0-68	0-68	0-62
Minimum operating height (mm)	1690	1750	1790	2000
Maximum operating height (mm)	2365	2410	2470	2690
Maximum maintenance height (mm)	2480	2540	2610	2850
Maximum operating pressure	0.3 MPa (3 bar or 43.5 psi)			
Empty column weight (kg)	500	1000	1700	2630
Footprint (mm×mm)	1160×610	1350×800	1510×1000	1740×1220
Operating temperature	2-40°C			
Pore size of sieve plate	10µm, 20µm			

Material

Chrom-LinX® Auto Chromatography Columns are made of materials suitable for biopharmaceutical production. The structural materials conform to ASME biological processing equipment standards, and the wetted polymer materials and elastic materials meet the requirements of USP<88> in vivo biological reactivity test and FDA 21 CFR Part 177. All materials contain no ingredients of animal origin and comply with the regulations in EMA/410/01 2nd edition. The parts used are traceable back to the product batch. Wetted parts can withstand most chemical reagents commonly used in chromatography, such as buffers or organic reagents for adsorption, elution, washing and preservation, as well as disinfectant solutions.

Parts	Material description
Column tube	Acrylic
O-ring	EPDM+UPE
Distribution plate	PP
Column head adapter	316L stainless steel
Column head	2205 stainless steel
Net ring	316L/904L stainless steel
Tubing/Fittings	316L stainless steel
Medium valve body	PP
Support	304 stainless steel
Caster	Nylon + polyurethane

Packing-LinX® Column Packing Workstation

The Packing-LinX® Column Loading Workstation enables 21 CFR Part 11 compliant packing operations. Chromatography columns are operated via the touch screen of the workstation. The workstation supports functions including venting, filling, disassembly, and maintenance besides corresponding programs, which can be selected and set by the operator as needed. During the packing process, the equipment will stop automatically when the set compression factor or height is reached, or the operator can stop it manually at any time.

Screen name

Visitor mode

Current step

-4Bar

+00.00N.m

Start

Stop

2022/10/21
10:07:21

Close the column top valve and the column top four-way valve, close the column bottom four-way valve, open the column bottom valve and the slurry tank bottom valve, raise the piston, and pump in the slurry to a preset height.

Packing preparation

Packing operation

Column dismantling operation

Column parameter editing

Chrom-LinX 450/700

Resin type ▼

Target column bed height 0 mm

Slurry pipe radius 00.0 mm

Slurry pipe length 0.0 mm

Slurry concentration 0.00 %

Slurry volume 0.00 L

Slurry flow rate 0.00 cm/h

Confirm

Pause

Cancel

Manual

Set speed 000 rpm/m

Current position 0.00 mm

During column maintenance, switch to manual control!

Up

Down

In situ

Reset

Stop

Reset

Automatic

Tag number

Pump in resin

Compress resin

Compress column bed

Clean homogenization tube

Main screen

Historical trends

Alarm history

Audit records

User management

System settings

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Ordering Information

Chromatography column	Pore size of sieve plate	Product code
Chrom-LinX Auto 450/700	20µm	2345-1221
Chrom-LinX Auto 600/700		2360-1221
Chrom-LinX Auto 800/700		2380-1221
Chrom-LinX Auto 1000/700		2310-1221
Chrom-LinX Auto 1200/700		2312-1221
Chrom-LinX Auto 450/700S	10µm	2345-1211
Chrom-LinX Auto 600/700S		2360-1211
Chrom-LinX Auto 800/700S		2380-1211
Chrom-LinX Auto 1000/700S		2310-1211
Chrom-LinX Auto 1200/700S		2312-1211

Accessories	Specification	Product code
Braided silicone tubing	3/8 inch, ID 9.5mm, TC25 chuck, 2m in length	2611-1121
Braided silicone tubing	3/4 inch, ID 19mm, TC25 chuck, 4m in length	2611-1221
Braided silicone tubing	1 inch, ID 25.4mm, TC50 chuck, 4m in length	2611-1321
Braided silicone tubing	3/8 inch, 316L material, four-way, one-pass, TC25	2611-1341
Braided silicone tubing	1.5 inch, ID 38.1mm, TC50 chuck, 4m in length	2611-1442
Cross valve	1/2 inch, 316L material, four-way, one-pass, TC25	2621-1121
Cross valve	1 inch, 316L material, four-way, one-pass, TC50	2621-1152
Diaphragm valve	DN15, chuck end, ID 9.4mm, 316L material, TC25	2622-2011
Diaphragm valve	DN20, chuck end, ID 15.75mm, 316L material, TC25	2622-2031
Diaphragm valve	DN25, chuck end, ID 22.1mm, 316L material, TC50	2622-2042
Diaphragm valve	DN40, chuck end, ID 22.1mm, 316L material, TC50	2622-2052
Chuck	TC25, 304 stainless steel	2631-1010
Chuck	TC50, 304 stainless steel	2631-1020
Gasket	3/8 inch, TC25, EPDM	2632-3110
Gasket	1/2 inch, TC25, EPDM	2632-3210
Gasket	3/4 inch, TC25, EPDM	2632-3310
Gasket	1 inch, TC50, EPDM	2632-3420
Gasket	1.5 inch, TC50, EPDM	2632-3520
Upper column head o-ring	EPDM (Chrom-LinX Auto 450)	2345-4110
Upper column head o-ring	EPDM (Chrom-LinX Auto 1000)	2310-4110
Upper column head scraper	UPE (Chrom-LinX Auto 450)	2345-4220
Upper column head scraper	UPE (Chrom-LinX Auto 1000)	2310-4220
Bottom column head o-ring	EPDM (Chrom-LinX Auto 450)	2345-4310
Bottom column head o-ring	EPDM (Chrom-LinX Auto 1000)	2310-4310
Upper sieve plate	316L stainless steel, 10µm	2345-2131
Upper sieve plate	316L stainless steel, 20µm	2345-2132
Upper sieve plate	316L stainless steel, 10µm	2310-2131
Upper sieve plate	316L stainless steel, 20µm	2310-2132
Bottom sieve plate	316L stainless steel, 10µm	2345-2231
Bottom sieve plate	316L stainless steel, 20µm	2345-2232
Bottom sieve plate	316L stainless steel, 10µm	2310-2231
Bottom sieve plate	316L stainless steel, 20µm	2310-2232

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About BioLink

BioLink is a group of technology-driven businesses that provide process solutions in the life sciences industry. The company focuses on the development and production of the key processing equipment and consumables used in the manufacturing process of recombinant protein drugs, vaccines, antibodies, cell therapies, gene therapies, and other biological products. BioLink's portfolio of offerings covers the entire upstream and downstream bioprocess such as cell culture, single-use mixing and storage, chromatography, filtration (ultrafiltration/diafiltration, clarification, and virus removal), and hydration products, as well as process development services. BioLink is committed to providing customers with high-quality, innovative products and solutions and strives to build an efficient, safe and competitive biopharmaceutical supply chain eco-system.

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Document No.: BLK-BR-20240409-02-EN