

Introduction

The prepLiLi is designed for continuous, high-volume industrial chromatography applications. We provide individual support for each installation and industrial integration.

Solvent consumption: 90-1800 $\left[\frac{l}{h}\right]$.

Injected sample: 0.075-7.5 $[kg]$

Cell structure

The rotor of the device has a special z-cell design, which results in a higher plate number than the miniLiLi device and therefore a better separation capacity.

Scale Up

Methods developed on miniLiLi/midiLiLi devices can be applied to maxiLiLi or prepLiLi devices with simple scaling.

The scaling of the flow rate can be calculated from the following formula:

$$Q_{maxi} = Q_{mini} \cdot \left(\frac{V_{maxi}}{V_{mini}}\right)$$

$$Q - flow\ rate \left[\frac{ml}{min}\right]$$

$$V - volume\ [mm^3]$$

The injection volume can be calculated from the following formula:

$$\mathrm{m}_{\mathrm{maxi}} = m_{mini} \cdot \left(\frac{V_{maxi}}{V_{mini}}\right)$$

$$m - mass\ [g]$$

The rotation speed scaling can be calculated using the following formula:

$$n_{maxi} = n_{mini} \cdot \sqrt{\frac{r_{mini}}{r_{maxi}}}$$

$$n - \ rotation\ speed \left[\frac{1}{min}\right]$$

$$r - radius\ of\ rotor\ [mm]$$

Speed Correlation Between Machines				
	miniLiLi 600 [rpm]	miniLiLi 800 [rpm]	miniLiLi 1000 [rpm]	miniLiLi 1250 [rpm]
prepLiLi [rpm]	220	295	365	455

Area of Use

- High volume industrial chromatography production.
- A tailor-made solution that provides the optimal environmental and professional conditions for a smooth set-up and operation.
- A preparative chromatograph designed for continuous, high-volume operation that can be directly integrated into an industrial environment.
- If higher chromatographic capacity is required, the instrument can be designed and tailored to the specific needs of the planned plant.

What could you do with prepLiLi?

With prepLiLi you can start an industrial cooperation project with LiLiChro.

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PrepLiLi-LC01000		
	Europe	**USA**
Power supply	400V 50 [Hz] 30 [A]	480V 60 [Hz] 30 [A]
Utilized materials	Steel - Stainless:1.4404, AISI 316L PTFE PEEK FFKM	
Flow rate	1.5-30 [l/min]	
Column volume	100 [l]	
Loading	0.075-7.5 [kg]	
Cell type	Z	
Material of the inlet pipe	Steel - Stainless:1.4404, X2CrNiMo17-12-2, A4, AISI 316L	
Material of the outlet pipe	Steel-Stainless:1.4404, X2CrNiMo17-12-2, A4, AISI 316L	
Inlet pipe diameter ID/OD	ID= 0.295" (7,5 mm); OD= 0.394"(10 mm)	
Outlet pipe diameter ID/OD	Custom design	
Standard inlet and outlet connectors	Custom design	
Stationary phase retention	>80-90%	
Rotor radius	900 mm	
Rotational speed	0-400 rpm	
Recommended rotational speed	100-200 rpm	
Maximum pressure	2.5 MPa (725 psi)	
Operating pressure	0.2-1 MPa (29-145 psi)	
Dimensions (W × H × D)	3000 x 2440 x 2590 mm (118.11" x 96.06" x 101.97" inch)	
Weight	6000 kg (13227.72 lb)	
Solvent compatibility chart	Organic solvents, Water, Compatible with organic acids up to 5%*, Compatible with organic bases up to 5%*, Sulfuric acid, Hydrochloric acid, Alkaline hydroxides, Not compatible with organometallic reagents	

***After use, it is recommended to flush the column with water**