



# HICHROM

Chromatography Columns and Supplies

**LC CONSUMABLES  
AND ACCESSORIES**  
Filters

**Catalogue 9**

## Hichrom Limited

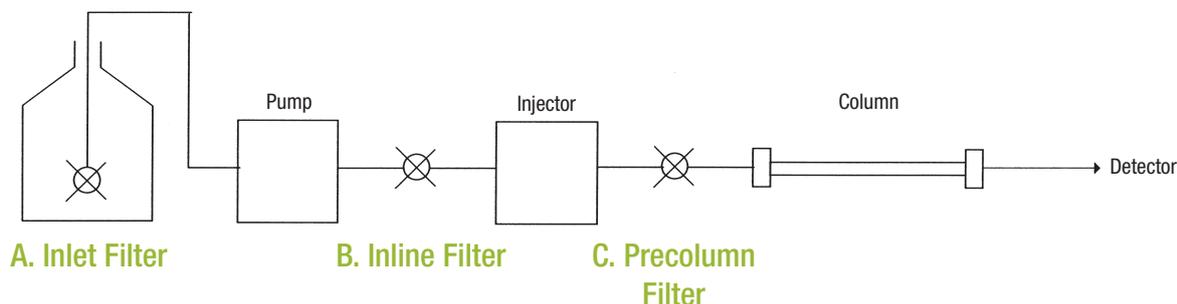
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## FILTERS

The use of filters is strongly recommended for complete protection of different components within an HPLC or UHPLC system. As shown in the figure below, three types of filter are used.



### A. Inlet Filters

- Protect pump check valves
- Help remove dissolved gases

Solvent inlet filters are used at the low pressure inlet side of the pump to help protect check valves, injector and column from particulate contamination from the eluent. It is recommended that inlet filters are replaced at least every six months.

#### 1) Stainless Steel Inlet Filter

Made from 10µm porosity stainless steel, these filters are available for connection to either 1/8" or 1/16" i.d. tubing. Their large surface area filters out particulate matter from the solvent that may otherwise damage expensive hardware. No tools are required for replacement.

Description	Catalogue No.	Price
10µm Inlet filter with stem for 1/16" i.d. tubing	HI-583	
10µm Inlet filter with stem for 1/8" i.d. tubing	HI-584	



HI-583



HI-584

#### 2) Bottom-of-the-Bottle™ Solvent Filters

These biocompatible filters are made from 100% PEEK, including two built-in PEEK frits. The bottom frit (2 or 10µm) will draw solvents from within 2mm of the bottom of the solvent bottle. The 2µm frit on the side may be used for a 1/8" o.d. helium sparging line.

Description	Catalogue No.	Price
2µm PEEK filter for 1/8" o.d. tubing	HI-579	
10µm PEEK filter for 1/8" o.d. tubing	HI-580	



#### 3) Last Drop™ Inlet Filter

The Last Drop™ eluent filter utilises a flat filter element which sits parallel to the bottom of the reservoir. This design enables the filter to draw all but the last 2% of the eluent from the reservoir without drawing air into the system. The Last Drop filter allows more analyses per batch of eluent and helps reduce waste compared to conventional cylindrical eluent filters. The filter contains a 316 stainless steel or PTFE filter element in an inert Teflon housing. The metal-free version should be used for sensitive biochromatography applications. A tubing connector is supplied with every Last Drop eluent filter.

Description	Catalogue No.	Price
Last Drop Filter (2µm SS filter)	HI-692	
Last Drop Filter (10µm SS filter)	HI-690	
Last Drop Filter (2.5µm PTFE filter)	HI-695	
Last Drop Filter (5µm PTFE filter)	HI-696	
Last Drop Filter (10µm PTFE filter)	HI-694	



HI-692

## B. Inline Filters

- Protect injectors from particulates
- Compatible with all HPLC systems

Inline filters are placed between the pump and sample injection valve to trap particles released through normal piston seal wear within the pump. Hichrom offers stainless steel and biocompatible inline filters to suit various applications. It is recommended that the frits are checked frequently and replaced as soon as they contribute to a system back pressure.

### 1) Analytical Inline Filters

Model HI-702 comprises a stainless steel holder and a 2µm PEEK encapsulated stainless steel frit (supplied). Replacement frits (HI-100) are readily available. The HI-683 is a fingertight bioanalytical alternative, comprising a PEEK holder and a 5µm titanium PEEK-encased frit. Replacement 5µm and 2µm titanium PEEK-encased frits are available.



### 2) Preparative Inline Filter

The preparative inline filter HI-610 is suitable for use with 10-30mm i.d. HPLC and SFC columns. The filter protects the column and helps maintain performance by removing particulate matter and insoluble material from eluent and sample matrix. This versatile filter can also protect check valves, injectors and detectors.



## C. Precolumn Filters

- Protect columns from particulates
- Compatible with all HPLC columns
- Ultra low dead volume

Placed immediately before the column, precolumn filters trap sample particulates. However, for samples that may irreversibly adsorb onto the column, guard cartridges are preferred, or additionally recommended.

### 1) ColumnSaver™ HPLC Precolumn Filter

The ColumnSaver™ fingertight precolumn filter is universally compatible with all manufacturers' endfittings. Both 2µm and 0.5µm versions are available, for the protection of columns containing packings of 5µm and 3µm respectively. The ColumnSaver precolumn filter is leakproof to over 6,000psi.



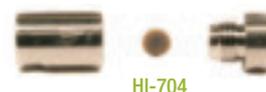
### 2) Hichrom UHPLC Precolumn Filter

Hichrom UHPLC Precolumn Filters are engineered specifically for use with fast, high efficiency UHPLC columns. The low dispersion of these filters ensures that the efficiency of the UHPLC column is maintained, assuring no loss of critical resolution. These filters can be installed simply on any analytical UHPLC or UPLC® column in seconds, providing leak-free filter protection to 1000 bar (15,000psi).



### 3) Stand-alone Precolumn Filter

Model HI-704 comprises a 'stand-alone' holder with a 2µm PEEK encapsulated stainless steel frit. Replacement 2µm and 0.5µm frits are available, providing protection for 5µm and 3µm columns respectively. The use of a fingertight coupler (HI-081, see p. 330) is recommended to connect the holder to the column inlet.



### Ordering Information – Inline Filters

Description	Cat. No.	Price
2µm Stainless steel inline filter assembly	HI-702	
2µm Replacement frits for HI-702 (10/pk)	HI-100	
Fingertight Ti PEEK encased inline filter (complete with 5µm frit)	HI-683	
Replacement Ti PEEK encased frits (5µm) (5/pk)	HI-684	
Replacement Ti PEEK encased frits (2µm) (5/pk)	HI-674	
Preparative inline filter	HI-610	
2µm frits for preparative inline filter (10/pk)	HI-611	

### Ordering Information – Precolumn Filters

Description	Cat. No.	Price
2µm ColumnSaver (10/pk) for 5µm columns	HI-685	
0.5µm ColumnSaver (10/pk) for 3µm columns	HI-686	
0.5µm Precolumn filter for UHPLC columns (1/pk)	HI-602	
0.5µm Precolumn filter for UHPLC columns (10/pk)	HI-602X	
Precolumn filter holder with 2µm frit	HI-704	
Replacement 2µm frits (10/pk)	HI-101	
Replacement 0.5µm frits (10/pk)	HI-102	