

Product Bulletin 105

Column Inlet Filters

- Extend column life by trapping undesirable debris
- Choice of diameters to match columns
- Replaceable 0.5 µm filter element

Column Inlet Filters (Models 7315 and 7335) are connected between the injector and column to protect the column inlet frit from particles in the sample or the injector. The filter minimizes column frit maintenance.

Model 7335 provides moderate dispersion and high capacity. Model 7315 provides low dispersion and moderate capacity. Although Model 7315's 1.5 mm (0.060") ID filter frit has 1/4 the filtering capacity of the 3 mm (0.120") ID frit, low dispersion makes Model 7315 ideal for use with some micro-scale columns. Rheodyne's Technical Note 6 discusses how these filters affect resolution on various column types.

Model 7335 is recommended for analytical analyses while Model 7315 is recommended for micro-scale analyses. Both Column Inlet Filters are supplied with two connecting tubes and three RheFlex® Stainless Steel fittings sets for convenient connection to your system. Accessory 0.13 mm (0.005") ID connecting tubes (P/N 7312-009 or 7520-032) are available for higher resolution when the risk of increased plugging can be tolerated.

QUALITY PERFORMANCE

Rheodyne Column Inlet Filters protect the HPLC system from undesirable particles as well as offer exceptional performance with little dispersion. Filter design features provide the low dispersion. The inlet and

outlet passages contain only 0.02 µL of volume, and the seals around the frit have no dead space, which allow smooth flow paths through the filter.

In the micro-scale system shown in Figure 1, only a slight loss of resolution was detected in two peaks (Peaks 2 and 3), and an 11% loss of theoretical plates in another peak (Peak 4), after Model 7315 filter connects to the system.

In an analytical system (not shown), Model 7335 adds virtually no discernable resolution loss, and only a 3% loss of theoretical plates, to the system.

SPECIFICATIONS

Maximum Operating Pressure:

48 MPa
(483 bar, 7000 psi)

Wetted Surfaces:

stainless steel and Kel-F

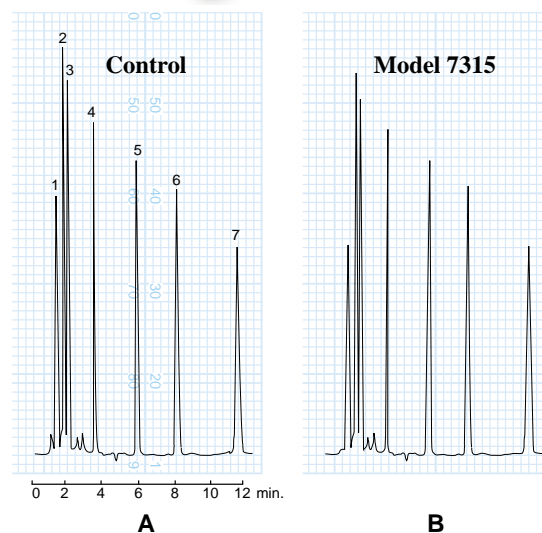


Fig. 1. Chromatograms from micro-scale HPLC systems. The control system "A" contains a 1 mm x 300 mm microbore column (with 4 µm packing) connected to the injector by a 0.13 mm ID x 60 mm connecting tube with no filter. The other system "B" contains Model 7315 Column Inlet Filter connected between the injector and the microbore column using two connecting tubes.

Ordering Information

Part Number	Description
7315	Column Inlet Filter with 0.5 µm pore size x 1.5 mm ID
7315-010	Replacement 0.5 µm pore size x 1.5 mm ID Filter Discs for 7315, 5/pkg
7335	Column Inlet Filter with 0.5 µm pore size x 3 mm ID
7335-010	Replacement 0.5 µm pore size x 3 mm ID Filter Discs for 7335, 5/pkg
7312-008	0.18 mm ID x 60 mm Connecting Tube
7312-009	0.13 mm ID x 60 mm Connecting Tube
7520-032	0.13 mm ID x 50 mm Connecting Tube