

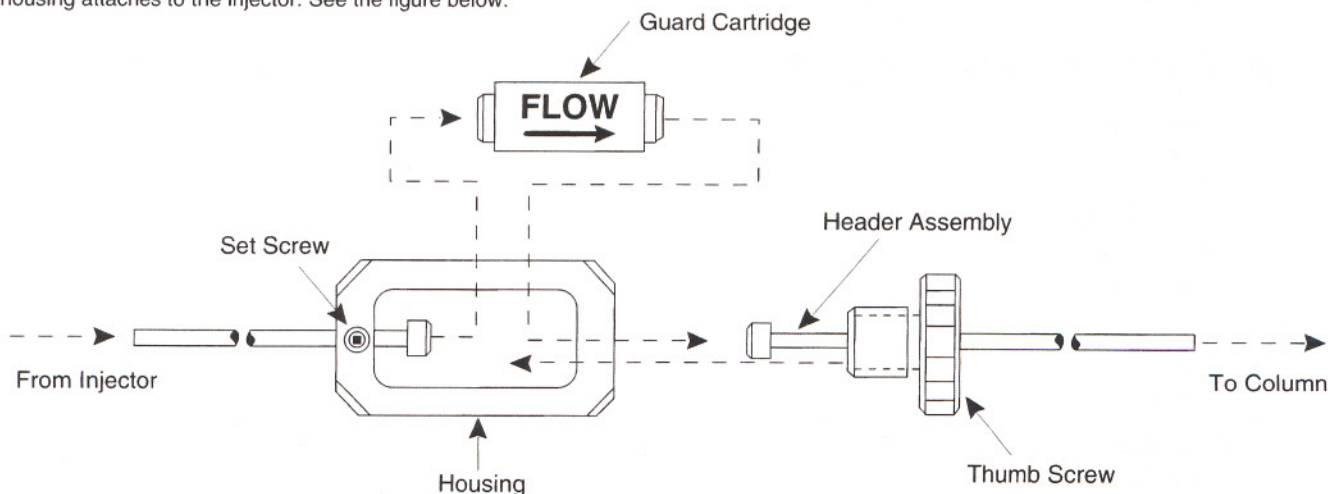
# GUARD COLUMNS

## PRODUCT SPECIFICATIONS

Housing Material: anodized aluminum  
 Connecting Tubing Size & Material: 1/16" O.D., 0.28 mm I.D., 316 stainless steel  
 Cartridge Materials: Barrel: CTFE  
                           Frits: 316 stainless steel  
                           Sleeve: 304 stainless steel  
 Frit Porosity: 2 micron  
 Cartridge Dimensions: 25 x 2.3 mm I.D.  
 Cartridge Bed Volume: 80 microliters  
 Cartridge Packing Material: as labeled  
 Particle Size: 12-20 um for polymeric packings  
                   10 um for silica packings  
 System Pressure Rating: 0-5,000 psi

## HOLDER INSTALLATION

To each connecting tube (called a header assembly), affix compression fittings (not included) which are compatible with the injector and the column. For ease of operation and cartridge installation, install the holder such that the tubing coming from the thumb screw connects with the column and the tubing from the main housing attaches to the injector. See the figure below.



**Guard Cartridge and Holder Assembly**

## CARTRIDGE INSTALLATION

After the holder has been installed, a guard column cartridge may be inserted and the guard column put into service.

1. Back out the thumb screw until the face of the header assembly is flush with the inside edge of the holder housing.
2. Insert the cartridge with the flow arrow pointing toward the column end of the holder housing. Gently press the cartridge onto the injector-side header assembly.
3. Slide the holder until the column-end header assembly is gently pressed into the cartridge.
4. Finger-tighten the thumb screw until it seats and then an additional eighth turn (maximum). It is not necessary to apply large amounts of pressure to achieve sealing of the cartridge to 5,000 psi. Overtightening may result in distortion of the cartridge and shortening its useful lifetime.
5. Pump approximately 2 ml of mobile phase through the guard column to assure that the packing is properly wetted before performing chromatographic injection. If the cartridge leaks, tighten the thumb screw just until the leaking stops.

## **NORMAL OPERATION**

The Guard Column Assembly was designed to provide ease of use while minimizing contribution to chromatographic band broadening. The assembly contributes extra-column volume of 10ul for the tubing and 33ul for the packed cartridge.

The Guard Column prevents particulates and highly adsorptive compounds from reaching the analytical column. The life of your Guard Column Cartridge is dependent upon the cleanliness of your samples and mobile phase; filtering the mobile phase extends the cartridge lifetime.

## **WARRANTY**

The Hamilton Company guarantees the Guard Column Cartridges and Holder to be free of defects in materials and workmanship. Upon receipt, this product is warranted to perform according to specifications published in this document. Products found to be defective will be replaced at our discretion without cost, provided the product is returned with an explanation given. No other warranty is assumed or implied.

## **GUARD COLUMN STARTER KITS (includes 1 holder & 2 cartridges)**

<b>Part #</b>	<b>Description</b>
79447	PRP-1 Guard Column Starter Kit
79461	PRP-3 Guard Column Starter Kit
79448	PRP-X100 Guard Column Starter Kit
79456	PRP-X200 Guard Column Starter Kit
79460	PRP-X300 Guard Column Starter Kit
79462	RCX-10 Guard Column Starter Kit
79457	Silica Guard Column Starter Kit
79458	Silica w/C8 Guard Column Starter Kit
79459	Silica w/C18 Guard Column Starter Kit

## **GUARD COLUMN REPLACEMENT CARTRIDGES (5 per pack)**

<b>Part #</b>	<b>Description</b>
79445	PRP-1 Cartridge
79454	PRP-3 Cartridge
79446	PRP-X100 Cartridge
79449	PRP-X200 Cartridge
79453	PRP-X300 Cartridge
79463	RCX-10 Cartridge
79450	Silica Cartridge
79451	Silica w/C8 Cartridge
79452	Silica w/C18 Cartridge

## **GUARD COLUMN REPLACEMENT PARTS**

<b>Part #</b>	<b>Description</b>
32908	Holder Assembly (includes housing, thumb screw, and 2 header assemblies)
32918	Header Assembly

A variety HPLC columns are available from Hamilton Company. The selection includes polymeric columns for reversed phase, ion chromatography, ion exclusion, glyphosate analysis, proteins, carbohydrates, and oligonucleotides. For a comprehensive list of applications, request a copy of the HPLC Application Catalog by calling (800) 648-5950.

For more information on Hamilton HPLC columns, contact your Hamilton Distributor or the Hamilton Company,  
P.O. Box 10030, Reno, Nevada 89520-0012. TOLL FREE (800) 648-5950 or (775) 858-3000.  
FAX: (775)856-7259

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