



Particulate Protection for Your Columns

Expert Tip :

SGE fittings, guard cartridges and in-line filters are completely compatible with all other manufacturers' HPLC columns and systems.



- Zero dead volume filter design.
- Zero pressure drop across filter.
- Zero compromise on performance.

The ProteCol™ In-Line Filter is a simple and effective way to protect your capillary columns from particulates. It protects your system from blockages and increased back pressures without introducing peak tailing or loss of resolution. The filtering element

is a 2 micron porosity screen, located between the square-cut and polished ends of two lengths of PEEKsil™ tubing ('tails'). The construction of the in-line filter minimizes dead volume, providing optimum column performance. In-line filters are available with both 1/16" and 1/32" O.D. PEEKsil™ tails, providing versatility in connectivity and flexibility. The ends of the tails are precisely square cut and polished to achieve zero dead volume connections using ProteCol™ Unions.

HPLC Supplies and Accessories

Description	Inlet Length (mm)	Outlet Length (mm)	Tail ID (µm)	Tail OD	Pack Size	Part No.
ProteCol™ Filtering Connector 1/16"	50	50	50	1/16"	3	212005
ProteCol™ Filtering Connector 1/32"	50	50	50	1/32"	3	222012
ProteCol™ 1/32" In-line Filter Kit Includes: 3 x 1/32" In-Line Filters (P/N 222012), 2 x PEEK™ Fingertight fittings for 6-40UNF port (P/N 222017), 2 x PEEK™ Fingertight fittings for 10/32 port (P/N 222002).	50	50	50	1/32"	See description	222016



HPLC Supplies | In-line Filters

- Inert – biocompatible.
- Utilizes a replaceable 0.5 µm porosity frit assembly.
- Simple, cost effective means of sample filtration suitable for pre-column use.
- Low dead volume design eliminates peak broadening and enhances column resolving power.
- Supplied with Hexnuts™.

Description	Pack Size	Part No.
In-line Filter with a 0.5 µm Frit (supplied with holder)	1	204002
Replacement In-line Filter Frit Assembly	1	202009

Expert Tip:

If you can't pre-filter samples, make sure to use a low dead volume in-line filter after the injector.



HPLC Supplies | PEEKsil™ Tubing Kits



Description	Pack Size	Part No.
1/16" tubing kit (50 µm I.D. 100, 200, and 300 mm lengths)	5	212012
1/32" tubing kit (50 µm I.D. 100, 200, and 300 mm lengths)	5	222008

For other lengths of PEEKsil™ tubing see PEEKsil™ on page 239.

HPLC Supplies | PEEKsil™ Injection Loop

- Smooth, non-reactive internal bore reduces sample carry-over and sample rinse times.
- Reduced sample loss due to shear or adsorption.
- Maximum operating pressures are 3000 psi for 10 µL, and 20 µL loops.
- Supplied with PEEKsil™ tubing and two sets of stainless steel Hexnuts™ with PEEK™ ferrule fittings.
- Compatible with most valves including Rheodyne® and Valco®.

Volume	PEEKsil™ ID	Length	Pack Size	Part No.
10 µL	0.22 mm (0.009")	26 cm (10.24")	1	0650010
20 µL	0.22 mm (0.009")	53 cm (20.87")	1	0650020



Expert Tip :

For complete loop fill, the syringe capacity should be greater than twice the loop volume. The loop capacity sets the injection volume. For partial loop fill, the injection volume should be no greater than half the loop capacity. The injection size sets the injection volume.



HPLC Supplies and Accessories

HPLC Supplies | EasyLok™ Fittings

EasyLok™ fittings are composed of a knurled stainless steel nut and a double ended PEEK™ ferrule. The PEEK™ ferrule simply slides over any 1/16" OD tubing to its required position, while the nut is finger tightened. Unlike stainless steel, the PEEK™ ferrule will not crush the tubing and can be easily readjusted for quick column changes.

The unique double ended ferrule design seals at two points to prevent leaks.

The fittings are compatible with any standard female HPLC fitting including Swagelok®, Parker™, Waters®, Valco® and Whatman®.

EasyLok™ fittings are recommended for use with SGE GLT™ columns.

SPECIFICATIONS	
Maximum Pressure Rating	5,000 psi
Thread Type	10-32

Description	Pack Size	Part No.
EasyLok™ Fitting	2 fittings, 2 ferrules	206102
PEEK™ Double Ended Ferrules	10	206160



Expert Tip :

For quick and easy HPLC column connections use EasyLOK™ nuts.



HPLC Supplies | Hexnut™ Fittings

- Stainless steel 10-32 thread fittings use a non-swaging Kel-F® or PEEK™ replaceable ferrule.
- Inert contact surfaces make them biocompatible.
- Ideal for applications where corrosive solvents are being used.
- Hexnut™ with Kel-F® or PEEK™ ferrules are recommended for use with SGE GLT™ columns.

Specifications	
Maximum Pressure Rating	5,000 psi
Thread Type	10-32

Description	Pack Size	Part No.
Stainless Steel Hexnuts™ and PEEK™ Ferrules	2 hexnuts, 2 ferrules	1021003
Stainless Steel Hexnuts™ and PEEK™ Ferrules	10 hexnuts, 10 ferrules	1021011
Kel-F® Ferrules	10	0730010
Replacement PEEK™ Ferrules	2	0730004
Replacement PEEK™ Ferrules	10	0730014





Accumulated impurities during a column's life may block the column termination frits, making a replacement necessary. Frit porosity must be chosen to retain particles. Select appropriate replacement frit for column type and packing size.

Description	Pack Size	Part No.
1 mm ID micro column frit assembly (3 µm packing)	2	202016
1 mm ID micro column frit assembly PEEK®-PTFE frit	2	2020155
4 mm ID GLT™ column frit assembly (3 µm packing)	2	202002
2 mm ID GLT™ column frit assembly PEEK®-PTFE frit (5 µm packing)	2	2020035
Frit Removal Tool	1	200005

HPLC Supplies | ProteCol™ Unions, Ferrules and Fittings

HPLC Supplies and Accessories



Perfect Connections, Every Time

- Zero dead volume design for no peak dispersion.
- Easy to use.
- Complete versatility – allows connection to the same or a range of different size tubing.
- Available in PEEK™ and stainless steel.

- Stainless steel unions can be finger tightened or tightened with a 3/16" wrench for high-pressure applications.
- PEEK™ unions can be finger tightened. They are slightly larger than stainless steel unions but also lighter - less stress on your tubing.

Connectivity

ProteCol™ Unions and reusable PEEK™ ferrules allow you to connect any combination of:

Stainless steel or PEEK™ unions

ProteCol™ Unions are available in either stainless steel or PEEK™ (for all sizes). All use the same range of reusable PEEK™ ferrules.

- 1/32" PEEKsil™.
- 1/16" PEEKsil™.
- 0.36 mm fused silica tubing.

ProteCol™ Stainless Steel Unions

Description	Pack Size	Part No.
0.36 mm to 0.36 mm	2 unions and 4 PEEK™ Ferrules	222007
1/16" to 0.36 mm	2 unions and 4 PEEK™ Ferrules	212008
1/16" to 1/16"	2 unions and 4 PEEK™ Ferrules	212006
1/16" to 1/32"	2 unions and 4 PEEK™ Ferrules	212007
1/32" to 0.36 mm	2 unions and 4 PEEK™ Ferrules	222006
1/32" to 1/32"	2 unions and 4 PEEK™ Ferrules	222005

For your inert connection tubing solutions use PEEKsil™, see page 234.

ProteCol™ PEEK™ Unions

Description	Pack Size	Part No.
0.36 mm to 0.36 mm	2 unions and 4 PEEK™ Ferrules	222011
1/16" to 0.36 mm	2 unions and 4 PEEK™ Ferrules	212011
1/16" to 1/16"	2 unions and 4 PEEK™ Ferrules	212009
1/16" to 1/32"	2 unions and 4 PEEK™ Ferrules	212010
1/32" to 0.36 mm	2 unions and 4 PEEK™ Ferrules	222010
1/32" to 1/32"	2 unions and 4 PEEK™ Ferrules	222009

ProteCol™ PEEK™ Ferrules

Description	Pack Size	Part No.
0.36 mm to 0.36 mm	5	223007
1/16" to 0.36 mm	5	213008
1/16" to 1/16"	5	213006
1/16" to 1/32"	5	213007
1/32" to 0.36 mm	5	223006
1/32" to 1/32"	5	223005

PEEK™ Fingertight Fittings

Description	Pack Size	Part No.
1/16" to 10-32UNF	5	2062752
1/32" to 10-32UNF	5	222002
1/32" to 10-32UNF (long)	5	2062753
1/32" to 6-40UNF	5	222017



HPLC Supplies and Accessories



HPLC Supplies | High Efficiency HPLC Column Couplers

- Inert – biocompatible.
- Provide a rigid low dead volume, metal free connection between two components of an HPLC system.
- Ideal for connecting two HPLC columns, a HPLC column to a guard cartridge or in-line filter.

Specifications	
Maximum Pressure Rating	5,000 psi
Thread Type	10-32

Description	Pack Size	Part No.
Stainless Steel Hexnut™ Coupling Kit	1	200009
5 x Replacement PEEKsil™ tubing (1/16" x 175 µm ID x 50 mm) Part No. 0624351		
2 x Replacement PEEK™ Ferrules Part No. 0730004		
10 x Replacement PEEK™ Ferrules Part No. 0730014		



HPLC Supplies | Detector/Tubing Unions

- True zero dead volume unions enable connection of existing detector and other metal male fittings to the finger-tight compatible SGE column and cartridge systems.
- Available for Waters®, Swagelok®, Parker™, Valco® and Rheodyne® male fittings.



Description	Pack Size	Part No.
Union for Waters and Rheodyne tubing	1	2062746
Union for Swagelok®, Parker and Valco tubing	1	2062747



- SGE recommends that 4.0 mm ID Guards be used to protect all 4.6 mm and 4.0 mm ID HPLC columns.
- Vital for HPLC column protection.
- Inert, metal free - biocompatible flow path.
- Improved biological and ion chromatography.
- Pre-packed in a range of packing materials.

These inert, biocompatible cartridge systems offer maximum efficiency to protect the analytical column and begin the separation process.

Each of these guard cartridges has an effective length of 10 mm.

Guard Cartridge Holder

Description	Pack Size	Part No.
Guard Cartridge Holder	1	205000

Guard Cartridges

Description	Column ID (mm)	Pack Size	Part No.
Exsil™ ODS - 3 micron	4.0 and 4.6	3*	2050010
Exsil™ ODS - 5 micron	4.0 and 4.6	3*	2050001
Exsil™ Silica - 5 micron	4.0 and 4.6	3*	2050002
Exsil™ C8 - 5 micron	4.0 and 4.6	3*	2050003
Exsil™ Amino - 5 micron	4.0 and 4.6	3*	2050004
Exsil™ SCX - 5 micron	4.0 and 4.6	3*	2050005
Exsil™ SAX - 5 micron	4.0 and 4.6	3*	2050006
Exsil™ Cyano - 5 micron	4.0 and 4.6	3*	2050007
Exsil™ Phenyl - 5 micron	4.0 and 4.6	3*	2050008
Nucleosil® ODS - 5 micron	4.0 and 4.6	3*	2050014

* Holder not included

Note: Not for use with ProteCol™ HPLC analytical columns. Please refer to pages 208-210 for ProteCol™ range of guard columns.

HPLC Supplies and Accessories



Expert Tip :

Always use a guard cartridge to prolong column life.



- PTFE and porous glass membrane filter.
- Efficiently filters particles down to 1.2 μm with minimal pressure drop.
- Filters solvent as it is drawn from the reservoir.



Description	Pack Size	Part No.
Solvent Filter (1 μm)	1	204000

HPLC Accessories | SilFlow™ - New Splitter Technology

Using SGE's SilFlow™ technology of microchannels in wafers, the next generation of splitters is now available.

There are two configurations of wafers developed to enable connecting flow lines to external components in a GC or HPLC system.

SilFlow™ offers low dead volume connections, that are deactivated and can be easily installed. For further information on SilFlow™ technology see page 182.

Configuration Types

SilFlow™ Splitters are available in 3 port configuration for HPLC applications, and as 3 and 4 ports for GC. See page 185 for GC applications.

Kit Contents

Each kit comes complete with: wafer, fingertite tool, mounting bracket, appropriately sized ferrules and nuts, and blanking ferrules to assist with set up.



Description	Tubing Dimensions			For Tubing	Pack Size	Part No.
	Port A	Port B	Port C			
SilFlow™ HPLC 3 Port Splitter						
LC Kit (1/32)	1/32"	1/32"	1/32"	1/32	Kit	123740
LC Wafer (1/32)	1/32"	1/32"	1/32"	1/32	1	123741

Replacement Parts

Description	For Tubing	Pack Size	Part No.
SilFlow™ LC Nut 1/32"	1/32" OD	10	123708
SilTite™ Ferrule 1/32"	1/32" OD	10	073473

