



HPLC Supplies and Accessories

MEPS™ Micro SPE	218-221
ProteCol™ In-Line Filters	222
In-line Filter	222
PEEKsil™ Tubing Kits	222
PEEKsil™ Injection Loop	223
EasyLok™ Fittings	223
Hexnut™ Fittings	223
HPLC Column Replacement Frits	224
ProteCol™ Unions, Ferrules and Fittings	224-225
High Efficiency HPLC Column Couplers	225
Detector/Tubing Unions	225
Guard Cartridge Systems	226
Solvent Filter	227
SilFlow™ - New Splitter Technology	227

MEPS™ (Micro Extraction by Packed Sorbent) has been created by SGE to overcome the limitations of conventional sample preparation methods. It has been estimated that up to 75% of labor time in a typical analytical laboratory workflow is consumed in preparing and processing

samples prior to their analysis. Therefore, any improvement in sample preparation efficiency will increase sample throughput and deliver important time savings for busy laboratories. Below is a comparison of MEPS™ with other common sample preparation techniques.

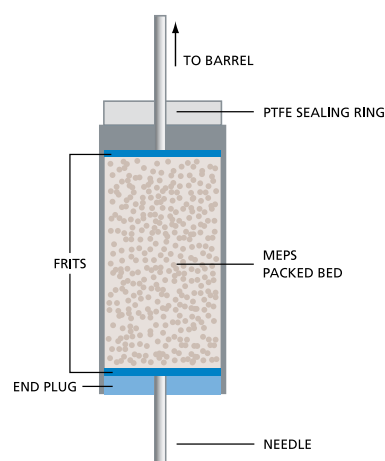
Comparison of Sample Preparation Methods

	LLE (Liquid-Liquid Extraction)	SPE (Solid Phase Extraction)	MEPS™ (Micro Extraction by Packed Sorbent)
Method Description	<ul style="list-style-type: none"> Relies on the difference in solubility of analytes in immiscible liquids. One phase is aqueous (hydrophilic) and the other is an organic (hydrophobic) solvent. 	<ul style="list-style-type: none"> The organic phase is immobilized on a stationary phase in a cartridge. A suitable organic solvent mixture is used to selectively elute the compounds of interest. Stationary phase does not move, sample and solvents must be moved to the cartridge. Can be used to remove unwanted interfering compounds and to increase sample concentration. 	<ul style="list-style-type: none"> A miniaturized form of SPE with a reduced stationary phase (3mg) integrated into a high quality SGE analytical syringe. Stationary phase moves with the syringe which aspirates and dispenses the sample. Can be used to remove unwanted interfering compounds.
Sample Volume Required	<ul style="list-style-type: none"> Generally large e.g. 10-100 mL. 	<ul style="list-style-type: none"> Small e.g. 3 mL 	<ul style="list-style-type: none"> Micro e.g. 50 µL.
Evaporation Step	<ul style="list-style-type: none"> Solvent evaporation required to increase sample concentration to a level that can be analyzed. 	<ul style="list-style-type: none"> In the majority of cases, solvent evaporation required to increase sample concentration to a level that can be analyzed. 	<ul style="list-style-type: none"> Evaporation generally not required.
Solvent Used	<ul style="list-style-type: none"> Large solvent volumes required e.g. 10-100 mL. 	<ul style="list-style-type: none"> Large solvent volumes required e.g. 10 mL. 	<ul style="list-style-type: none"> Micro e.g. 500 µL.
Time	<ul style="list-style-type: none"> Slow and labor intensive. 	<ul style="list-style-type: none"> Evaporation step can be time consuming. 	<ul style="list-style-type: none"> Fast e.g. minutes, as one step washes, loads and elutes.
Automation	<ul style="list-style-type: none"> Entire process cannot be automated. 	<ul style="list-style-type: none"> Can be automated. 	<ul style="list-style-type: none"> Can be fully automated.
Price	<ul style="list-style-type: none"> High solvent purchase and discard costs. 	<ul style="list-style-type: none"> High solvent purchase and discard costs. 	<ul style="list-style-type: none"> Low solvent purchase and discard costs.

MEPS™ (Micro Extraction by Packed Sorbent) is a micro SPE solution that incorporates the stationary phase in a micro-cartridge integrated in a high quality SGE analytical syringe (Barrel Insert and Needle - BIN configuration). MEPS™ is the miniaturization of conventional SPE packed bed devices from mL to µL bed volumes.

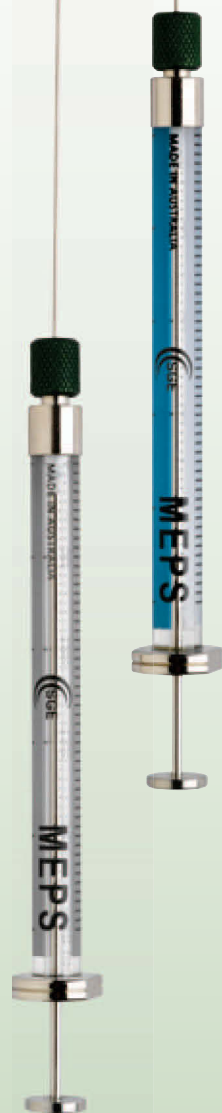
MEPS™ stationary phases available: C2, C8, C18, Silica, C8+SCX, SAX.

eVol® MEPS™ stationary phases available: C2, C8, C18, APS, DVB, SDVB



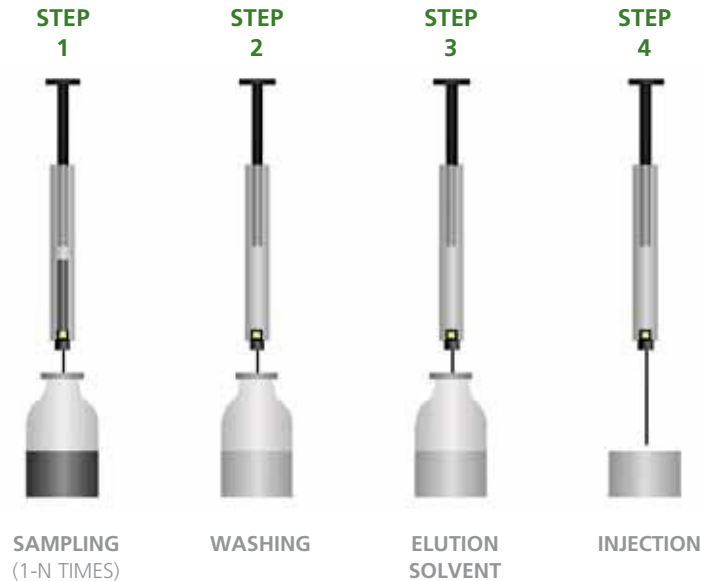
Schematic of the MEPS™ stationary phase within the syringe needle – SGE's patented 'Barrel Insert and Needle' (BIN) configuration.

HPLC Supplies and Accessories



How To Use MEPS™

- Step 1: Pump the sample through the MEPS™ BIN (one or more volumes may be taken).
- Step 2: Wash the MEPS™ BIN once by pumping 20 µL to 50 µL of wash solution through the BIN to remove interferences.
- Step 3: Elute the analyte by drawing solvent through the BIN into the syringe barrel.
- Step 4: Inject the analyte directly into the injector.
- Pump 50 µL solvent followed by 50 µL wash solution to prepare BIN for the next sample.



HPLC Supplies and Accessories

MEPS™ Is Reusable

Like conventional SPE, the number of times the cartridge can be reused is dependent on the sample matrix and the cleaning regime between elutions. Since only 3mg of stationary phase is used in MEPS™ it can be

washed effectively between each extraction without the need for large solvent volumes. For simple applications, MEPS™ devices have been used successfully for up to 50 cycles making it very cost effective.

MEPS™ Can Be Semi or Fully Automated

Semi-automation of MEPS™ can be achieved by coupling MEPS™ syringes to SGE's eVol® automated analytical syringe to speed up repetitive SPE and is ideal for rapid method development. For more information on eVol® see pages 22-24.

MEPS™ can also be fully automated on autosamplers such as the CTC PAL for on-line SPE and injection.













MEPS™ Has Proven Accuracy and Precision Compared to Other Sample Preparation Methods

Method	Ropivacaine LOD (nM)	Accuracy (%)	Precision (RSD%) (Inter-assay)	Handling Time
MEPS™ / GC-MS	2	105	5.0	1 min
LLE / GC-MS	2	101	3.8	20 min
SPE / LC-UV	100	101	3.0	20 min
SPME / GC-MS	5	110	6.3	40 min

Comparison of accuracy and precision between MEPS™ and other methods for ropivacaine (local anesthetics).

MEPS™ Applications and Publications

MEPS™ micro SPE format is ideally suited to previously challenging applications. For an example of MEPS™ used in a forensic application see page 12.

Industry	Title	Author	Journal
Environmental  Environment	Determination of organic priority pollutants and emerging compounds in wastewater and snow samples using multiresidue protocols on the basis of microextraction by packed sorbents coupled to large volume injection gas chromatography-mass spectrometry analysis.	Prieto et al	J Chrom A, 2010, 1217: 6002-6011
Forensic and Pharmaceutical  Forensics Pharmaceuticals	Liquid chromatographic analysis of oxcarbazepine and its metabolites in plasma and saliva after a novel microextraction by packed sorbent procedure.	Saracino et al	Anal Chim Acta, 2010, 661: 222-228
Environmental  Environment	At-line microextraction by packed sorbent-gas chromatography-mass spectrometry for the determination of UV filter and polycyclic musk compounds in water samples.	Moeder et al	J Chrom A, 2010, 1217:2925-2932
Forensic  Forensics	Contribution of microextraction in packed sorbent for the analysis of cotinine in human urine by GC-MS.	Lafay et al	Anal Bioanal Chem, 2010, 396: 937-941
General Chemistry and Life Science  General Chemistry Life Sciences	Recent advances in microextraction by packed sorbent for bioanalysis.	Abdel-Rehim	J Chrom A, 2010, 1217: 2569-2580
Forensic  Forensics	Rapid identification and quantification of methamphetamine and amphetamine in hair by gas chromatography/mass spectrometry coupled with micropulverized extraction, aqueous acetylation and microextraction by packed sorbent.	Miyaguchi et al	J. Chrom A, 2009, 1216: 4063-4070
General Chemistry and Life Science  General Chemistry Life Sciences	Fully Automatic Sample Treatment by Integration of Microextraction by Packed Sorbents into Commercial Capillary Electrophoresis-Mass Spectrometry Equipment: Application to the Determination of Fluoroquinolones in Urine.	Morales-Cid et al	Anal. Chem., 2009, 81: 3188-3193
Forensic  Forensics	Screening of Cocaine and Its Metabolites in Human Urine Samples by Direct Analysis in Real-Time Source Coupled to Time-of-Flight Mass Spectrometry After Online Preconcentration Utilizing Microextraction by Packed Sorbent.	Jagerdeo E, Abdel-Rehim M	J Am Soc Mass Spectrom. 2009 May;20(5):891-899
Food and Flavour  Food	Determination of 2,4,6-Trichloroanisole and 2,4,6-Tribromoanisole in Wine using Microextraction in Packed Syringe and Gas Chromatography-Mass Spectrometry.	Jönsson et al	J. Agric. Food Chem., 2008, 56: 4962-4967
General Chemistry  General Chemistry	Study of the factors affecting the performance of microextraction by packed sorbent (MEPS) using liquid scintillation counter and liquid chromatography-tandem mass spectrometry.	Altun and Abdel-Rehim	Anal Chim Acta. 2008, 630:116-123
Pharmaceutical  Pharmaceuticals	MEPS™ as a rapid sample preparation method to handle unstable compounds in a complex matrix: determination of AZD3409 in plasma samples utilizing MEPS™-LC-MS-MS.	Abdel-Rehim M et al	J Chromatogr Sci. 2008 46:518-523
Pharmaceutical and Life Science  Pharmaceuticals Life Sciences	Rapid and Sensitive Method for Determination of Cyclophosphamide in Patients Plasma Samples Utilizing Microextraction by Packed Sorbent Online with Liquid Chromatography-Tandem Mass Spectrometry (MEPS™-LC-MS/MS).	Said et al	J. Liquid Chromatography & Related Technologies 2008, 31: 683-694

MEPS™ Syringe Options

All syringes may be used manually as well as with the listed autosamplers.

Description	# per Pack	Part No.
100 µL Removable needle MEPS™ syringe for CTC Analytics, HTA 300A Plus & Varian 8400 systems.	1	005291
Replacement plunger assembly for 005291.	1	031826
250 µL Removable needle MEPS™ syringe for CTC Analytics, HTA 300A Plus & Varian 8400 systems.	1	006291
Replacement plunger assembly for 006291.	1	031831
250 µL Removable needle MEPS™ syringe for CTC Analytics systems.	1	006292
Replacement plunger assembly for 006292.	1	031831
100 µL Removable needle MEPS™ syringe for Agilent systems.	1	005292
Replacement plunger assembly for 005292.	1	0318263
250 µL Removable needle MEPS™ syringe for Agilent systems.	1	006293
Replacement plunger assembly for 006293.	1	0318303
100 µL removable needle MEPS™ XCHANGE® syringe for CTC PAL-xt	1	2928500
250 µL removable needle MEPS™ XCHANGE® syringe for CTC PAL-xt	1	2928600

For eVol® MEPS™ syringes please see page 24.

MEPS™ Barrel Insert and Needle (BIN) Assembly Options

For GC applications, needle is 23 gauge, 0.63 mm OD, Cone point style.

Description	For Use with MEPS™ Syringe P/N	# per Pack	Part No.
MEPS™ BIN for CTC Analytics, HTA 300A Plus & Varian 8400 systems			
C18	005291 and 006291	5	2900101
Silica	005291 and 006291	5	2900102
C8+SCX*	005291 and 006291	5	2900103
C2	005291 and 006291	5	2900104
C8	005291 and 006291	5	2900106
MEPS™ Development kit (contains 1 each of C18, C8, C2, SILICA and C8+SCX)	005291 and 006291	1	2900105
MEPS™ BIN for CTC Analytics systems using 250 µL syringes			
C18	006292	5	2900301
Silica	006292	5	2900302
C8+SCX*	006292	5	2900303
C2	006292	5	2900304
C8	006292	5	2900306
MEPS™ Development kit (contains 1 each of C18, C8, C2, SILICA and C8+SCX)	006292	1	2900305
MEPS™ BIN for Agilent systems 7693A			
C18	005292 and 006293	5	2900601
Silica	005292 and 006293	5	2900602
C8+SCX*	005292 and 006293	5	2900603
C2	005292 and 006293	5	2900604
C8	005292 and 006293	5	2900606
MEPS™ Development kit (contains 1 each of C18, C8, C2, SILICA and C8+SCX)	005292 and 006293	1	2900605

For LC Applications, needle is 22 gauge, 0.72 mm OD.

Description	For Use with MEPS™ Syringe P/N	# per Pack	Part No.
MEPS™ BIN for CTC Analytics, HTA 300A Plus & Varian 8400 systems			
C18	005291 and 006291	5	2900401
Silica	005291 and 006291	5	2900402
C8+SCX*	005291 and 006291	5	2900403
C2	005291 and 006291	5	2900404
C8	005291 and 006291	5	2900406
SCX	005291 and 006291	5	2900408
SAX	005291 and 006291	5	2900409
MEPS™ Development kit (contains 1 each of C18, C8, C2, SILICA and C8+SCX)	005291 and 006291	1	2900405
MEPS™ BIN for CTC Analytics systems using 250 µL syringe			
C18	006292	5	2900501
Silica	006292	5	2900502
C8+SCX*	006292	5	2900503
C2	006292	5	2900504
C8	006292	5	2900506
SCX	006292	5	2900508
SAX	006292	5	2900509
MEPS™ Development kit (contains 1 each of C18, C8, C2, SILICA and C8+SCX)	006292	1	2900505

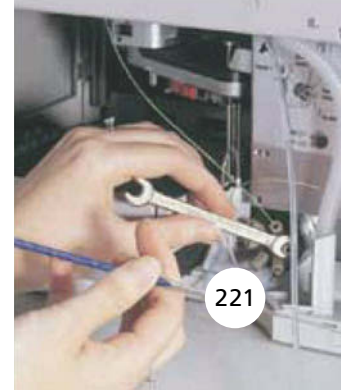
Base material is silica with mean particle size of 45 µm and pore size of 60 Å. *C8+SCX BINS are labelled as M1.

For eVol® MEPS™ Applications. All LC needles are 55.5 mm in length, 22 gauge and dome tipped. All GC needles are 55.5 mm in length, 23 gauge and cone tipped.

Phase	LC Needle Part No.	GC Needle Part No.
C18	2900701	2900711
C8	2900702	2900712
C2	2900707	2900717
APS - amino-propyl silane	2900703	2900713
DVB - hydrophobic polystyrene-divinylbenzene copolymer	2900705	2900715
SDVB - styrene-divinylbenzene	2900706	2900716

All packs contain 5 MEPS™ BINs and can be used with 50, 100 and 500 µL eVol® MEPS™ syringes.

HPLC Supplies and Accessories





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 Supplies and Accessories

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

