





GC Consumables guide

Quick Pick Choose By Your Instrument


Agilent GC - PerkinElmer GC - Shimadzu GC - Thermo Scientific GC - Varian GC




Discover more about SGE's syringe range [page 1](#)



What to consider when choosing your Septum? [page 2](#)



Leak free SilTite™ Ferrules for MS users [page 3](#)



Find out more about the advantages of using a FocusLiner™ [page 4](#)

www.sge.com



forte™ GC Capillary Columns

With 30 years of experience, GC capillary columns truly are SGE's strength, its forte.

SGE is the only independent manufacturer of GC capillary columns that has the skill and technology to control all critical processes from producing the fused silica capillary tubing, through the phase synthesis, to the validation of the performance of each column.

SGE offers a comprehensive range of forte™ GC capillary columns for almost any chromatographic application providing the best possible combination of Performance, Robustness, Reproducibility, Low Bleed and Inertness.

Use the table below to choose the column for your application

RECOMMENDED COLUMN BY APPLICATION

Application	PHASE													
	SolGel-1ms BP1	BPX1 BP1-PONA	BPX5 BP5	HT5	HT8	BPX35	BPX-Volatiles BP624	BP10	BPX50	SolGel-WAX™ BP20	BP21	BPX70	CYDEX-B	BPX90
Acidic/Neutral Drugs			●			●								
Acids			●							●	●			
Alcohols			●				●			●	●			●
Amines Aliphatic			●				●			●				
Amines Aromatic			●			●	●			●				
Antidepressants			●			●								
Aromatic -PAH	●		●		●	●			●					●
Aroclors					●									●
Beverages -Alcohols							●			●				
Butter-Fat			●	●										
Chiral - Compounds													●	
Chlorinated Aromatics	●		●			●		●						
Cigarette Lighter Fuel			●				●							
Dioxins			●						●					
Essential Oils			●							●			●	●
Food - FAME			●							●		●		●
Glucose - Methylated												●		
Herbicides	●		●			●			●					
Industrial Solvents							●			●				
Ketones						●	●	●	●	●				
Monomers			●							●				
Nitroaromatics	●		●		●	●		●	●					
Organochlorine Pesticides	●		●		●	●		●	●					●
Organophosphorous Pesticides	●		●			●			●					●
Paraffins	●	●	●	●										
PCB's			●		●									●
Petroleum	●	●	●	●										
Phenols			●			●				●	●			
Phthalates	●		●											●
Plant Sterols			●			●			●					
Polymers	●			●										
Polywax	●		●	●										
Pyrethroids	●		●					●	●					
Racehorse Doping Mixture			●			●								
Sedatives			●			●								
Semivolatiles	●		●			●								●
Silicon Oil				●										
Solvents							●			●				●
Sugars-Alditol Acetates			●							●	●			
Triglycerides			●	●										
TRPH			●	●										
Volatiles			●				●			●				
Xylenes		●	●	●						●				●

● Indicates recommended phases to be used for the application

● Indicates alternative phases that can be used for the application

Dear Customer,

SGE Analytical Science is pleased to provide you with this guide to our main GC consumables product offering. SGE has over 40 years experience supplying Gas Chromatography consumables for GC's around the world. All products come warranted for optimized performance with your instrument and in many cases have features that surpass many of the standard supplied items.

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Varian

SGE involvement in Gas Chromatography includes the support we give to our customers.

Technical Support

Please contact us at techsupport@sge.com for technical support information.

Our website



www.sge.com is a detailed source for information on chromatography, applications and SGE products. It also profiles the latest posters and technical materials generated by our technical experts based around the world.

Syringe Feature Guide



SGE's involvement in all areas of Chromatography provides a unique understanding of customers' requirements for optimum syringe design.

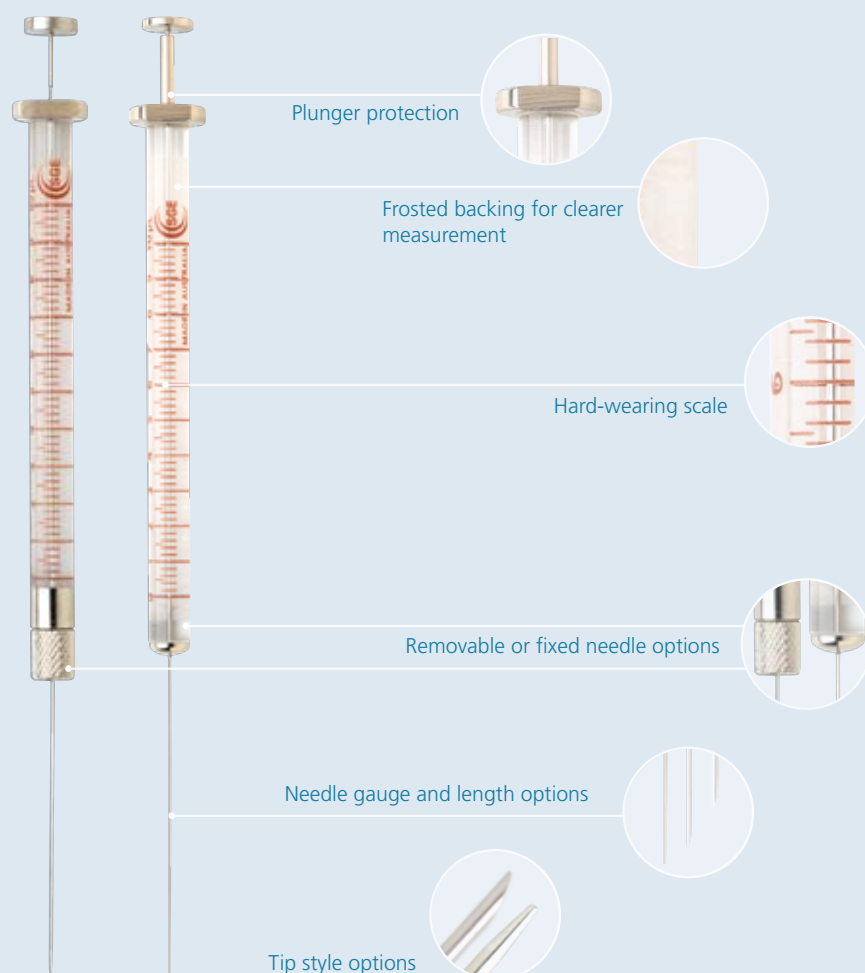
With over 40 years of syringe manufacturing experience, you can be sure that choosing SGE syringes will guarantee the results you need.

Choose our syringes for manual or autosampler use providing volume accuracy, reproducibility and user friendliness.

For more info on our syringe range visit www.sge.com

'Performance as Standard' at SGE:

- Borosilicate glass barrel for strength and inertness.
- Stainless steel needles for inertness, strength and corrosion resistance.
- Backing behind the scale aids quick and accurate reading of the syringe scale.
- Metal back flange provides stability and resists fracture.
- Metal needle cap on syringe barrel protects and improves syringe lifetime.
- Syringes are individually tested for quality ensuring reliability and conformance.
- Unique packaging design eliminates possible contamination in the syringe.



HANDY TIP 1

A syringe should be flushed with approx. 5-10 times its total capacity to eliminate carryover between samples.

Follow the handy hint trail

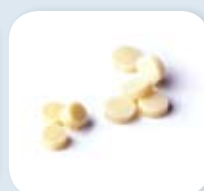
Septum Selection Guide

When choosing a Septum consider the following:

- Which instrument and injection port
- What size
- Which material
- Injector temperature



Septa Selection



	CS™	TCS™	Auto-Sep™	Auto-Sep T™	Enduro™ Blue
Typical uses	Low cost, low temperature applications	Med/High temp. applications	High volume autosampler and manual use esp. for GC-MS	Temperature program injectors, high volume autosamplers, esp. for GC-MS	For Shimadzu GC's
Material	Teflon coated silicone	Teflon coated triple layer silicone	Silicone	Teflon coated silicone	High Temp. Silicone
Durability	Good	Good	Excellent	Excellent	Excellent
Resealing	Good	Very Good	Excellent	Excellent	Excellent
Solvent Resistance	Excellent	Excellent	Excellent	Excellent	Excellent
Tear Resistance	Good	Very Good	Excellent	Excellent	Excellent
Maximum Temp.	200 °C	280 °C	320 °C	350 °C	350 °C

HANDY TIP 2

To maximize septa life match septa temperature rating to your injector temperature.

Ferrules Selection



Graphite

- Easy to use
- Forms a stable seal
- Soft material - can be squashed
- Porous to O₂ (not for GC- MS)
- High temperature limit 450 °C
- Forms 'soft' grip with column
- Re-useable



15 % Graphite 85 % Vespel®

- Mechanically robust
- Hard material, long lifetime
- Maximum temperature 350 °C
- Must re-tighten after initial temperature cycles
- Forms strong grip with capillary column
- Cannot be re-used with another capillary column
- For GC-MS interface

Their performance and cost-effectiveness also makes them ideal for connecting GC columns to injectors and detectors.

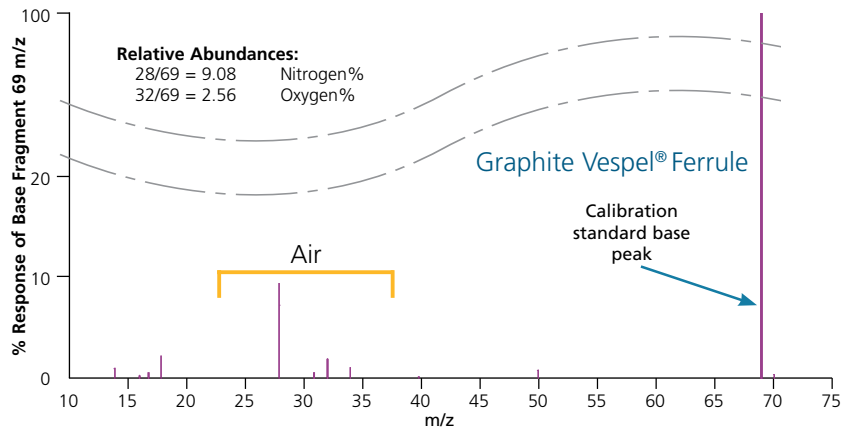


Figure 1. MS trace using a Vespel® ferrule after 5 temperature cycles.

SilTite™ - The Ultimate GC Ferrule

- Eliminates leaks
- Removes contamination caused by Vespel® or Graphite ferrules
- No need to re-tighten Vespel® ferrules after temperature cycling.
- Reduce air background (as can be seen from Figure 2)
- Cleaner Spectra for better library matches

SilTite™ ferrules deliver a leak free seal ideal for mass spec users. Easy to install. They eliminate the need to tighten after thermal cycling.

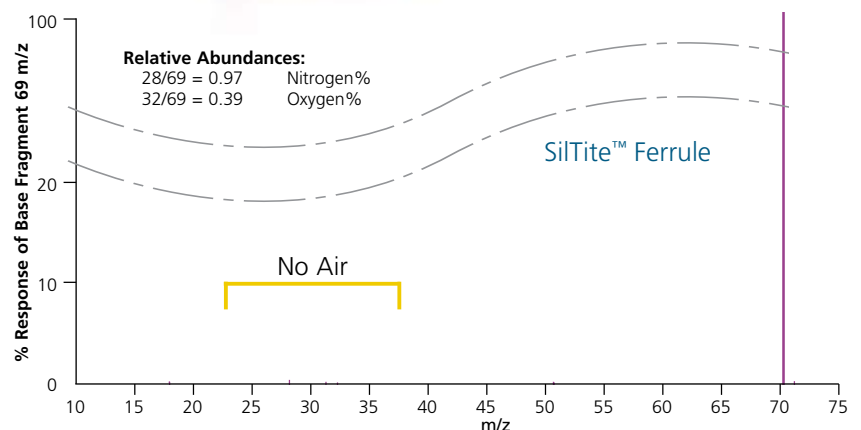


Figure 2. MS trace using a SilTite™ ferrule after 5 temperature cycles. (Using a MS no leaks can be detected, even after 400 temperature cycles between 70 °C and 400 °C)

FocusLiner™

With conventional liners, the wool can be moved away from the optimum position after repetitive injections, despite correct insertion of the wool into the liner (as shown in Figure 1a below). This is especially true if using an autosampler due to the force of the injection.

The FocusLiner's unique design ensures the wool is securely positioned in the optimum position i.e. able to wipe the end of the syringe needle (Figure 2).

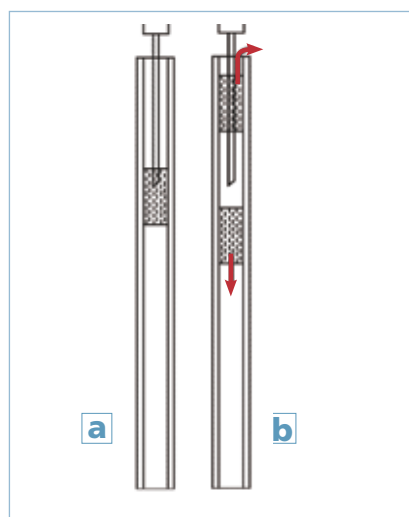


Figure 1. Conventional wool liner.
(a) Wool plug is in the correct position to wipe needle tip
(b) Wool plugs can be moved in either direction, preventing needle wiping

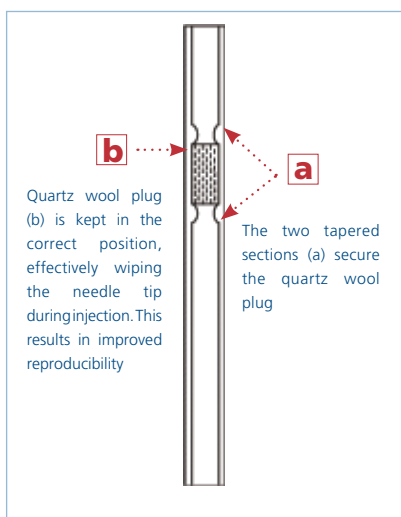


Figure 2. FocusLiner™ showing secured wool plug for excellent reproducibility. The wiping of the sample off the end of the syringe needle is important for reproducibility. Relative standard deviations of less than 1% are readily obtainable with the FocusLiner™.

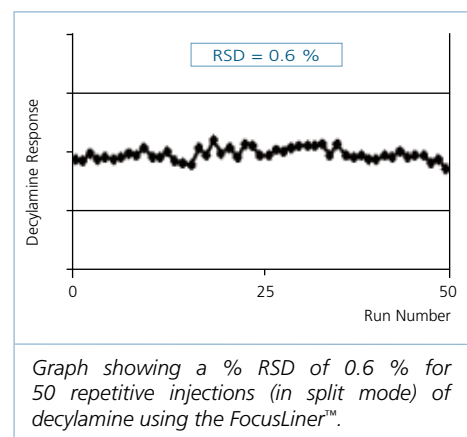


Figure 4. FocusLiner™ Reproducibility.

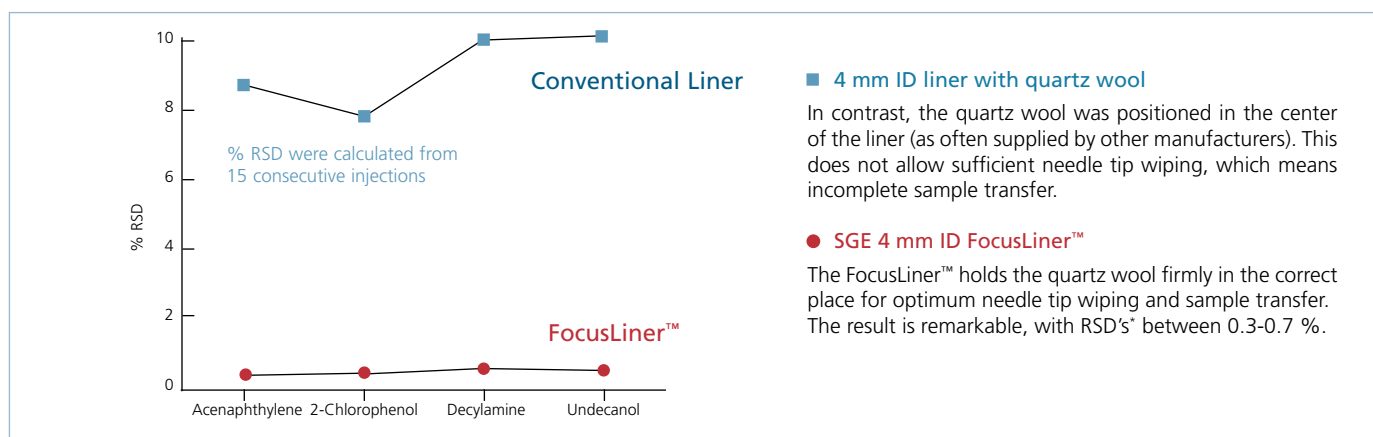


Figure 3. Sample Precision 10 ng/Component Level

Advantages of Tapered FocusLiner™

Advantages are the same as the standard FocusLiner™ PLUS


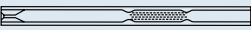
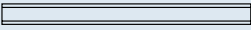
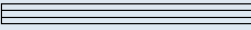
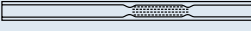

- Minimizes sample contact with the metal portion of the injection port
- Minimizes mass discrimination
- The taper allows for greater variance in column placement within the liner

HANDY TIP 3

Did you know that FocusLiner gives RSDs between 0.3 and 0.7%?
That's up to 40 times better than other liners

Liner Selection

Linear Type/Feature: Liner use

Straight-through liner 	Universal liner
Taper at the top of the liner 	This design feature minimizes the effect of excess vapor expansion, thus reducing Flashback*.
Taper at the bottom of the liner 	Column installation into the liner becomes more robust because the taper "channels" analytes into the column. The distance the column is inserted into the liner is not so critical. The taper minimizes contact of analytes with the bottom of the injection port. Depending on the instrument type, the base of the inlet could be a metal seal, which can add activity to the injection process. The taper at the bottom of the liner is especially suited for active compounds.
Taper at the top and the bottom of the liner 	A liner with both tapers has all the features described above. However, with a double taper, no wool can be inserted into the liner by the user.
Wide ID liners (> 4mm ID) 	Suitable for split and splitless injections. Highest volume liners, thus minimizing Flashback*. Used for injection volumes > 2.0 µL.
Narrow ID liners (< 2.5 mm ID) - FAST Liners 	Especially suited for splitless injection. Is the most suitable liner to be used with FAST Capillary Columns (0.1 mm ID columns).
Quartz wool in liner 	Promotes mixing of analytes and results in better quantitation. Acts as a trap to collect non-volatile residue in the sample. Protects capillary column from dirty samples. Prevents sample hitting the bottom of the injector before volatilization.
Quartz wool in the liner located at the optimum 	Excellent reproducibility results from the wiping of the needle tip Results in lower mass discrimination. Glass wool prevents the sample hitting the bottom of the injector.
In-situ deactivation of quartz wool double glass baffling (FocusLiner™) 	Ensures there is no manual handling of glass wool after deactivation. Ensures glass wool remains in the correct position in the liner. Top baffle prevents glass wool shifting towards the septum. Bottom baffle prevents the glass wool being pushed down.

* Flashback will occur when on vaporization, the volume of the expanded gas sample expands to a greater volume than that of the inlet liner. The result of flashback is that solvent and sample can flow back into the inlet and purge gas lines causing contamination of your system.

HANDY TIP 4

The splitless time should be approximately the same as the liner volume, e.g. 1.0 min or 1.0 mL volume.
KEEP THE TIME AS SHORT AS POSSIBLE.

Technical Information

How often should I change my liner?

The short answer to this is when either quantitation or peak shape deteriorates. Laboratories injecting very dirty samples should change their liners daily. Laboratories injecting cleaner samples will only need to change their liner once a month. SGE recommends a change frequency of at least once a month.

Should I re-Deactivate my liner?

NO! All SGE liners are deactivated using a proprietary high temperature gas phase deactivation. The temperature

of deactivation is greater than 400 °C. This ensures the deactivation of your liner is stable in your injection port at typical inlet temperatures. Users who choose to deactivate their own liners will usually do this at room temperature or temperatures lower than 400 °C. This can cause incomplete, or thermally unstable deactivation.

How to prevent Flashback

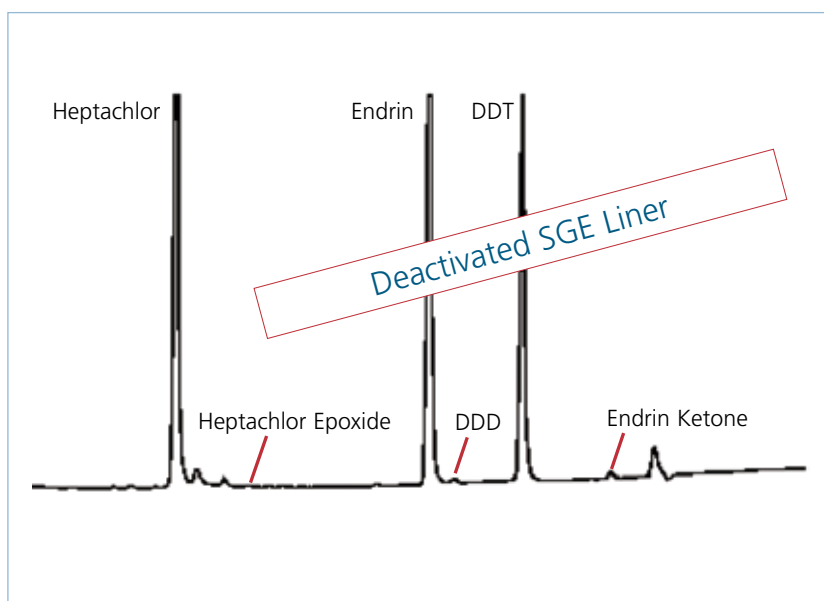
- Choose a solvent with a high molar mass
- Know the volume of your liner
- Know the expansion volume of the solvent
- Lower inlet temperature
- Increase inlet pressure

Liner ID Selection

- Halving liner ID will reduce total liner volume to one quarter of the volume.
- Wide ID liners are more suited to large volume (> 2.0 µL) injections and will minimize Flashback
- Narrow ID liners are especially suited for splitless injection
- The Fast FocusLiner™ (ID = 2.3 mm) is ideal for 0.10mm ID capillary columns

For most instruments, there is a choice of liner inner diameter (ID). For example, a straight-through Agilent liner (p/n 092007) with an inner diameter of 4mm and a length of 78.5 mm will have an internal volume of approximately 1.0 mL. A 1.0 µL injection of methylene chloride at 250 °C and an inlet pressure of 10 psi will expand to 0.39 mL. Clearly this is OK if the total volume of the liner is 1.0 mL.

Water Injection: For a 1.0 µL injection of water, the gas expansion volume will be 1.41 mL which is obviously greater than the volume of the liner. If this quantity of water is injected under the above conditions, the vapor will expand beyond the liner and end up in the purge lines and the carrier gas inlet lines. Eventually, the vapor will work its way back into the inlet and the column and this effect is known as Flashback. Flashback will cause erratic quantitation, peak tailing and even ghost peaks.



Organochlorine pesticides are often used to evaluate the chemical inertness of inlet liners. In particular, the pesticides Heptachlor, Endrin and DDT, readily degrade to produce their corresponding degradation products Heptachlor Epoxide, Endrin Ketone and DDD. The chromatogram illustrates the efficiency of the SGE high temperature deactivation process, effectively no degradation of the probe compounds are observed.

SGE's high temperature gas phase in-situ process

- Eliminates activity due to handling of quartz wool
- High temperature process gives excellent lifetimes

CHEMICAL INERTNESS 5 pg/Component Level

Autosampler Syringes

All needles are 42mm long with a cone point.

Volume	Needle Gauge (OD mm)	Syringe Code	Syringe Part No.	Pack Size	Spare Needle Part No.	Pack Size	Spare Plunger Part No.	Pack Size
Agilent 7673, 7683 & 6850 ALS								
Fixed Tapered Needle								
5µL	23-26s (0.63/0.47)	5F-HP-0.63/0.47C	001821	1	-	-	-	-
10µL	23-26s (0.63/0.47)	10F-HP-0.63/0.47C	002821	1	-	-	-	-
10µL <i>Gas Tight</i>	23-26s (0.63/0.47)	10F-HP-GT-0.63/0.47C	002826	1	-	-	031808	2
Fixed Straight Needle								
5µL	26 (0.47)	5F-HP-0.47C	001800	1	-	-	-	-
5µL ^(M)	23 (0.63)	5F-HP-0.63C	001810	1	-	-	-	-
10µL	26 (0.47)	10F-HP-0.47C	002800	1	-	-	-	-
10µL ^(M)	23 (0.63)	10F-HP-0.63C	002810	1	-	-	-	-
10µL ^(M) <i>Gas Tight</i>	23 (0.63)	10F-HP-GT-0.63C	002812	1	-	-	031808	2
Removable Tapered Needle								
0.5µL	23-26s (0.63/0.47)	0.5BR-HP-0.63/0.47C	000415	1	033730	1**	-	-
5µL	23-26s (0.63/0.47)	5R-HP-0.63/0.47C	001825	1	036730	2	-	-
10uL	23-26s (0.63/0.47)	10R-HP-0.63/0.47C	002825	1	037730	2	-	-
10µL <i>Gas Tight</i>	23-26s (0.63/0.47)	10R-HP-GT-0.63/0.47C	002829	1	037730	2	031809	2
Removable Straight Needle								
0.5µL	26 (0.47)	0.5BR-HP-0.47C	000400	1	033708	1**	-	-
0.5µL ^(M)	23 (0.63)	0.5BR-HP-0.63C	000410	1	033715	1**	-	-
1µL	23 (0.63)	1BR-HP-0.63C	000610	1	034715	1**	-	-
5uL	26 (0.47)	5R-HP-0.47C	001805	1	036710	2	-	-
5uL ^(M)	23 (0.63)	5R-HP-0.63C	001815	1	036720	2	-	-
10uL	26 (0.47)	10R-HP-0.47C	002805	1	037715	2	-	-
10uL ^(M)	23 (0.63)	10R-HP-0.63C	002815	1	037717	2	-	-
10uL <i>Gas Tight</i>	26 (0.47)	10R-HP-GT-0.47C	002817	1	037715	2	031809	2
10uL ^(M) <i>Gas Tight</i>	23 (0.63)	10R-HP-GT-0.63C	002818	1	037717	2	031809	2
Wide Bore Needle	23 (0.63)							
(For use with 10µL syringe only)	/0.15 ID)	N10-HP-0.63(0.15)C	-		037725	2	-	-

^(M)Suitable for use with the Merlin Microseal™ Injector.

**Denotes Spare Needle and Plunger kit.

Septa

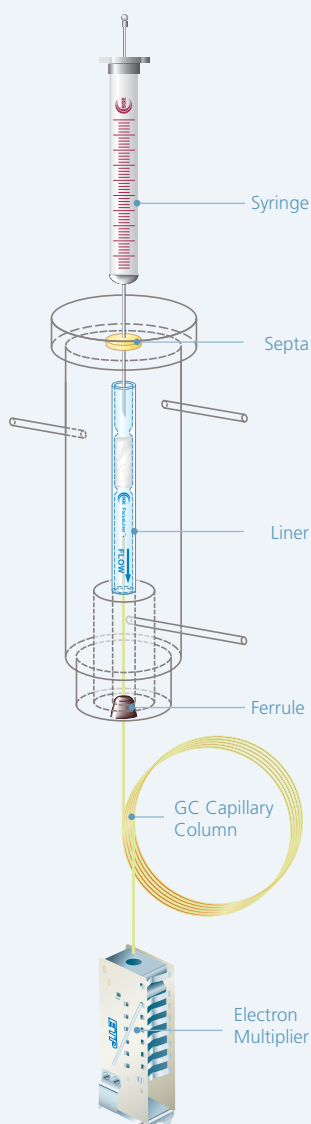
Instrument	Diameter (mm)	Septum Type	Pack Size	Part No.
4890, 5880, 5890, 6850, 6890 & 7890	11	CS	50	041826
	11	TCS	50	041846
	11	Auto-Sep™	25	041872
	11	Auto-Sep T™	25	041882
	11	Auto-Sep T™	100	041883
5700, 5800 & 5900	9.5	CS	50	0418240
	9.5	TCS	50	0418440
	9.5	Auto-Sep™	25	041871
	9.5	Auto-Sep T™	25	041880
5750, 710, 720, 810 & 7610	12.5	CS	50	041828
	12.5	TCS	50	041848
	12.5	Auto-Sep T™	25	041884
7620, 5790, 5880 & 5890	5	CS	50	041820
	5	TCS Predrilled	50	041850

Electron Multipliers

Instrument	Analyzer Type	Technique	Part No.
Agilent Technologies			
5970 (All)	Quadrupole	GC-MS	14511
5971, 5972, GCD	Quadrupole	GC-MS	14516
5973/5975 (Initial Installation – includes mount)	Quadrupole	GC-MS	14617*
5973/5975 (Replacement multiplier)	Quadrupole	GC-MS	14616*




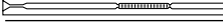


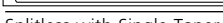
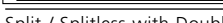
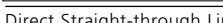
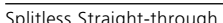

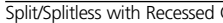
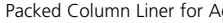
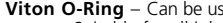
*not for 5975C Triple Axis Detector

SGE SUPPLIES
FROM
INJECTOR
TO
DETECTOR



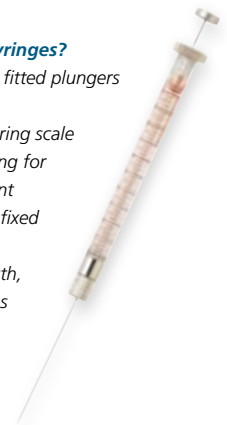
Inlet Liners

For SGE's full range of products,
visit www.sge.com

Description	ID (mm)	OD (mm)	Length (mm)	Pack Size	Part No.
Deactivated Liners for HP4890, Agilent 5890, 6850, 6890, & 7890					
Split/Splitless FocusLiner™	4.0	6.3	78.5	5	092002
 TOP				25	092219
Split / Splitless Tapered FocusLiner™	4.0	6.3	78.5	5	092003
 TOP				25	092011
Split / Splitless FAST FocusLiner™	2.3	6.3	78.5	5	092005
 TOP				25	092008
Split / Splitless Tapered FAST FocusLiner™	2.3	6.3	78.5	5	092111
 TOP				25	092115
Split, Straight-through Liner	4.0	6.3	78.5	5	092007
				25	092222
Split with Quartz Wool	4.0	6.3	78.5	5	092001
				25	092220
Split / Splitless with Single Taper	4.0	6.3	78.5	5	092017
 TOP				25	092229
Splitless with Single Taper & Quartz Wool	4.0	6.3	78.5	5	092019
 TOP				25	092218
Split / Splitless with Double Taper	4.0	6.3	78.5	5	092018
				25	092230
Direct Straight-through Liner	1.2	6.3	78.5	5	092016
				25	092224
Splitless Straight-through Liner, Quartz	2.0	6.1	78.5	5	092004
					
Splitless with Recessed Gooseneck	2.0	6.3	78.5	5	092013
					
Split/Splitless with Recessed Gooseneck & Quartz Wool	4.0	6.3	78.5	5	092010
				25	092223
Packed Column Liner for Agilent 5880, 5890 & 6890 GCs	1.8	3.0		25	092234
				25	092235
Viton O-Ring – Can be used at temperatures up to 300°C Suitable for all inlet liners above except 092234 & 092235.				10	0726532
Graphite Sealing Ring – Can be used at temperatures up to 450°C Suitable for all inlet liners above except 092004, 092234 & 092235.		6.35		10	0726005
Suitable for use with 092004.		6.1		10	0726006

Why choose SGE Syringes?

- Feature individually fitted plungers
- Are leak tested
- Feature a hard wearing scale
- Use a frosted backing for clearer measurement
- Have removable or fixed needle options
- Needle gauge, length, style and tip options



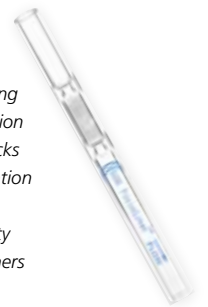
Why choose SGE Septa?

- Low bleed
- Optimized for instruments and applications
- Wide range to suit your equipment



Why choose SGE deactivated Liners?

- Liners deactivated using a gas phase deactivation
- Supplied in blister packs to prevent contamination
- FocusLiners™ provide superior reproducibility compared to other liners



Request a sample pack

Why Choose SilTite™ Ferrules?

- Never needs re-tightening, even after temperature cycling
- No contamination from Vespel® or graphite materials - 100 % metal
- Ferrule remains permanently fixed to the column but does not adhere to the SilTite™ nut
- Ideal for high pressure applications
- Also available for injector interfaces
- > 500 °C maximum temperature
- Patent Pending



Request a sample pack

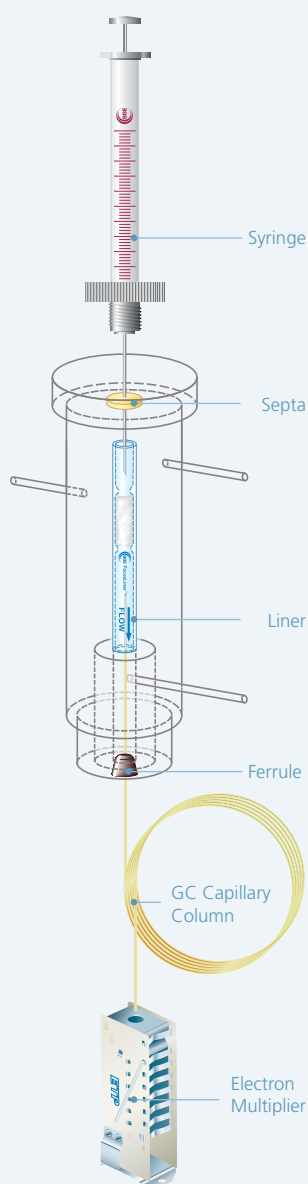
Ferrules

Material	Column ID	Ferrule ID	Pack Size	Part No.
15% Graphite / 85% Vespel® Ferrules				
For Injectors & Detectors at atmospheric pressure e.g. FID				
	0.1-0.25mm	0.4mm	10	073109
	0.32mm	0.5mm	10	073111
	0.53mm	0.8mm	10	073113
	for 1/8" OD Packed Columns	1/8"	10	072669
	for 1/4" OD Packed Columns	1/4"	10	072667
For GC-MS Interface Connection				
	0.1-0.25mm	0.4mm	10	072663
	0.32mm	0.5mm	10	072654
	0.53mm	0.8mm	10	072655
100% Graphite Ferrules				
Injectors & Detectors at atmospheric pressure e.g. FID (Not for GC-MS)				
	0.1-0.32mm	0.5mm	10	072635
	0.45-0.53mm	0.8mm	10	072636
	for 1/8" OD Packed Columns	1/8"	10	072602
	for 1/4" OD Packed Columns	1/4"	10	072601
SilTite™ Metal Ferrules				
For GC-MS Interface Connection (Starter Kit)				
	0.1-0.25mm	0.4mm	10*	073200
	0.32mm	0.5mm	10*	073201
	0.53mm	0.8mm	10*	073202
For Split / Splitless Injectors (Starter Kit)				
	0.1-0.25mm	0.4mm	10#	073270
	0.32mm	0.5mm	10#	073271
	0.45-0.53mm	0.8mm	10#	073272
	1/32"	0.81mm	10#	073273
Replacement SilTite™ Metal Ferrules				
For All Connections				
	0.1-0.25mm	0.4mm	10	073220
	0.32mm	0.5mm	10	073221
	0.53mm	0.8mm	10	073222
	1/32"	0.81mm	10	073219
Replacement SilTite™ Nuts				
For GC-MS Interface Connection				
			5	073224
For Split / Splitless Injector				
			5	073226
Replacement SilTite™ Base Seals				
For Split / Splitless Injector				
			2	073400
			10	073401

*Includes 10 ferrules, 2 SilTite™ nuts. # Includes 10 ferrules, 2 SilTite™ nuts and 2 SilTite™ Inlet Base Seals.

Quick Pick for PerkinElmer GC

SGE SUPPLIES
FROM
INJECTOR
TO
DETECTOR



Autosampler Syringes

All needles are 70mm long with a cone point style.

Volume	Needle Gauge (OD mm)	Syringe Code	Syringe Part No.	Pack Size	Spare Needle Part No.	Pack Size	Spare Plunger Part No.	Pack Size
Autosystem Fixed Needle								
5µL	26 (0.47)	5F-PE-0.47C	001953	1	-	-	-	-
5µL	23 (0.63)	5F-PE-0.63C	001954	1	-	-	-	-
5µL <i>Gas Tight</i>	26 (0.47)	5F-PE-GT-0.47C	001955	1	-	-	031807	2
5µL <i>Gas Tight</i>	23 (0.63)	5F-PE-GT-0.63C	001957	1	-	-	031807	2
50µL	23 (0.63)	50F-PE-0.63C	004670	1	-	-	-	-
Removable Needle								
0.5µL	26 (0.47)	0.5BR-PE-0.47C	000475	1	033750	1**	-	-
0.5µL	23 (0.63)	0.5BR-PE-0.63C	000478	1	033765	1**	-	-

**Denotes spare Needle and Plunger kit.

Septa



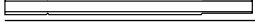
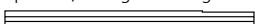


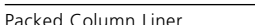
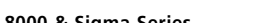



Instrument	Diameter (mm)	Septum Type	Pack Size	Part No.
Sigma, 900, 990, 3920, 8300, 8400, 8500, AutoSystem & Clarus 400, 500 & 600				
	11	CS	50	041826
	11	TCS	50	041846
	11	Auto-Sep™	25	041872
	11	Auto-Sep T™	25	041882
	11	Auto-Sep T™	100	041883

Ferrules

Material	Column ID	Size of Nut	Ferrule ID	Pack Size	Part No.
15% Graphite / 85% Vespel® Ferrules					
For Injectors & Detectors at atmospheric pressure e.g. FID					
	0.1-0.25mm	1/16"	0.4mm	10	072663
	0.1-0.25mm	1/8"	0.4mm	10	0726703
	0.32mm	1/16"	0.5mm	10	072654
	0.32mm	1/8"	0.5mm	10	0726702
	0.45-0.53mm	1/16"	0.8mm	10	072655
	0.45-0.53mm	1/8"	0.8mm	10	072671
	1/8" OD Packed Columns	1/8"	1/8"	10	072669
	1/4" OD Packed Columns	1/4"	1/4"	10	072667
100% Graphite Ferrules					
For Injectors & Detectors at atmospheric pressure e.g. FID (Not for GC-MS)					
	0.1-0.32mm	1/16"	0.5mm	10	072627
	0.1-0.32mm	1/8"	0.5mm	10	072624
	0.45-0.53mm	1/16"	0.8mm	10	072626
	0.45-0.53mm	1/8"	0.8mm	10	0726280
	1/8" OD Packed Columns	1/8"	1/8"	10	072622
	1/4" OD Packed Columns	1/4"	1/4"	10	072621
SilTite™ Metal Ferrules					
For GC-MS Interface Connection (Starter Kit)					
	0.1-0.25mm	-	0.4mm	10*	073200
	0.32mm	-	0.5mm	10*	073201
	0.53mm	-	0.8mm	10*	073202
Replacement SilTite™ Ferrules					
For GC-MS Interface Connection					
	0.1-0.25mm	-	0.4mm	10	073220
	0.32mm	-	0.5mm	10	073221
	0.53mm	-	0.8mm	10	073222
	1/32"	-	0.81mm	10	073219
Replacement SilTite™ Nuts					
		-	-	5	073224

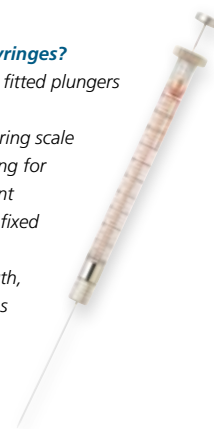
*Includes 10 ferrules, 2 SilTite™ nuts.

Inlet Liners

Description	ID (mm)	OD (mm)	Length (mm)	Pack Size	Part No.
AutoSystem™ & Clarus 400, 500 & 600					
Split / Splitless FocusLiner™  TOP	4.0	6.2	92	5	092092
Split / Splitless Tapered FocusLiner™  TOP	4.0	6.2	92	25	09209225
Split, Straight-through Liner  TOP	4.0	6.2	92	5	092100
Splitless, Straight-through Liner  TOP	2.0	6.2	92	5	092103
AutoSystem™ & Clarus 500/600					
AutoSystem XL, Split/Splitless (PSS Injector) 	2.0	4.0	86.2	5	092098
Split / Splitless FocusLiner™, AutoSystem XL (PSS Injector) 	2.0	4.0	86.2	5	092101
Sintered Glass, Large Volume Injection (LVI) (PSS Injector) 	0.78/2.4	4.0	86.2	5	092244
Packed Column Liner 	3.0	6.0	112	5	092236
8000 & Sigma Series					
Split / Splitless 	3.0	5.0	100	5	092091
Splitless with Single Taper 	2.0	5.0	100	5	092094
PTV Liner					
Recessed Gooseneck 	1.0	2.0	88	5	092097
Viton O-Ring – Can be used at temperatures up to 300°C For 6.2mm OD Inlet Liners.				10	0726536

Why choose SGE Syringes?

- Feature individually fitted plungers
- Are leak tested
- Feature a hard wearing scale
- Use a frosted backing for clearer measurement
- Have removable or fixed needle options
- Needle gauge, length, style and tip options



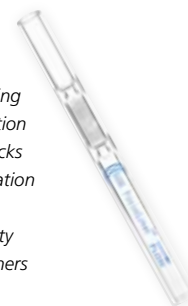
Why choose SGE Septa?

- Low bleed
- Optimized for instruments and applications
- Wide range to suit your equipment



Why choose SGE deactivated Liners?

- Liners deactivated using a gas phase deactivation
- Supplied in blister packs to prevent contamination
- FocusLiners™ provide superior reproducibility compared to other liners



Request a sample pack

Why Choose SilTite™ Ferrules?

- Never needs re-tightening, even after temperature cycling
- No contamination from Vespel® or graphite materials - 100 % metal
- Ferrule remains permanently fixed to the column but does not adhere to the SilTite™ nut
- Ideal for high pressure applications
- Also available for injector interfaces
- > 500 °C maximum temperature
- Patent Pending



Request a sample pack

Electron Multipliers

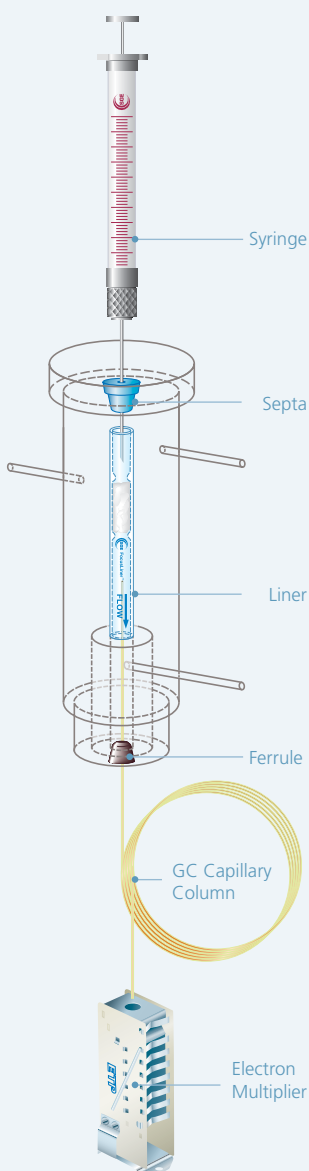
MS Description	Analyzer Type	Technique	Part No.
Ion Trap GC-MS	Ion Trap	GC-MS	14138
Q-Mass	Quadrupole	GC-MS	14532

HANDY TIP 5

If you are having problems with solvent focusing, or early eluting peaks seem broad or lop sided in splitless injection, then try using a column with a thicker film.

Quick Pick for Shimadzu GC

SGE SUPPLIES
FROM
INJECTOR
TO
DETECTOR



Autosampler Syringes

Volume	Needle Gauge (OD mm)	Syringe Code	Syringe Part No.	Pack Size	Spare Needle Part No.	Pack Size	Spare Plunger Part No.	Pack Size
AOC14, AOC17 and AOC20								
Fixed Needle								
5µL	26 (0.47)	5F-S-0.47C	001987	1	-	-	-	-
5µL	23 (0.63)	5F-S-0.63C	001988	1	-	-	-	-
250µL <i>Gas Tight</i>	23 (0.63)	250F-S-GT-0.63C	006682	1	-	-	031828	1
Removable Needle								
0.5µL	26 (0.47)	0.5BR-S-0.47C	000440	1	033738	1**	-	-
0.5µL	23 (0.63)	0.5BR-S-0.63C	000445	1	033745	1**	-	-
0.5µL	23-26s (0.63/0.47)	0.5BNR-S-0.63/0.47C	000450	1	033730	1**	-	-
10µL	26 (0.47)	10R-S-0.47C	002897	1	037745	2	-	-
10µL	23 (0.63)	10R-S-0.63C	002898	1	037747	2	-	-
10µL <i>Gas Tight</i>	23 (0.63)	10R-S-GT-0.63C	002902	1	037747	2	031798	2

**Denotes spare Needle and Plunger kit. All needles are 42mm long with a cone point style.

Septa

Instrument	Septum Type	Pack Size	Part No.
9A, 14, 15A, 16, 17A, 2010 & 2014	Enduro Blue	50	041890

Ferrules

Column ID	Description	Pack Size	Part No.
GC14A, GC17A, GC2010 and GC2014 Detector / Injectors (Not for MS interfaces or QP2010 Injector)			
0.10-0.32mm ID columns	100% Graphite	10	0726080
0.45-0.53mm ID columns	100% Graphite	10	0726082
5mm OD packed columns	100% Graphite	10	0726001
0.10-0.25mm ID columns	SilTite™ Metal - Initial Installation	10*	073350
0.10-0.25mm ID columns	SilTite™ Ferrules	10	073227
0.32mm ID columns	SilTite™ Metal - Initial Installation	10*	073351
0.32mm ID columns	SilTite™ Ferrules	10	073228
0.45-0.53mm ID columns	SilTite™ Metal - Initial Installation	10*	073352
0.53mm ID columns	SilTite™ Ferrules	10	073229
	SilTite™ Metal Nuts - Slotted	5	073232
QP5000/5050 Standard MS Interface			
QP5000-I 0.10-0.25mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	0726563
QP5000-I 0.32mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	0726564
QP5000-II & QP5050 0.10-0.25mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	0726561
QP5000-II & QP5050 0.32mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	0726562
0.10-0.25mm ID columns	SilTite™ Metal - Initial Installation	10*	073204
0.10-0.25mm ID columns	SilTite™ Ferrules	10	073227
0.32mm ID columns	SilTite™ Metal - Initial Installation	10*	073205
0.32mm ID columns	SilTite™ Ferrules	10	073228
0.53mm ID columns	SilTite™ Metal - Initial Installation	10*	073206
0.53mm ID columns	SilTite™ Ferrules	10	073229
	SilTite™ Metal Nuts-QP5000/5050 Standard MS interface	5	073233
QP5000/5050 Wide Bore MS Interface, QP2010 Injector and QP2010 Standard MS Interface			
0.10-0.25mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	072663
0.32mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	072654
0.45-0.53mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	072655
0.10-0.25mm ID columns	SilTite™ Metal - Initial Installation	10*	073200
0.10-0.25mm ID columns	SilTite™ Ferrules	10	073220
0.32mm ID columns	SilTite™ Metal - Initial Installation	10*	073201
0.32mm ID columns	SilTite™ Ferrules	10	073221
0.45-0.53mm ID columns	SilTite™ Metal - Initial Installation	10*	073202
0.45-0.53mm ID columns	SilTite™ Ferrules	10	073222
	SilTite™ Metal Nuts	5	073224




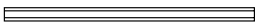

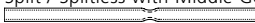




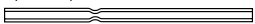
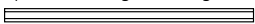







* Includes 10 ferrules, 2 SilTite™ nuts.

Ferrules continued

For SGE's full range of products, visit www.sge.com

Material	Pack Size	Part No.
Replacement SilTite™ Nuts		
For 2010 GC-MS System	5	073224
For 2010 GC-MS System with QP5000 series MS	5	073224
For 2010/2014 GC Injectors and atmospheric detectors	5	073224
QP5000 Jet Separator MS Interface	5	073224
QP5000 Direct MS Interface	5	073233
For All Injectors Jet Separator (Starter Kit), except 2010/2014	5	073232

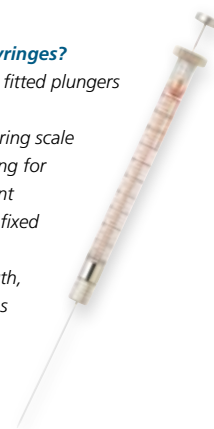
Inlet Liners

Description	ID (mm)	OD (mm)	Length (mm)	Pack Size	Part No.
2010 (SPL-2010 Injector)					
Split / Splitless Tapered FocusLiner™ 	3.4	5.0	95	5	092058
Split / Splitless FocusLiner™ 	3.4	5.0	95	5	092059
Split, Straight-through Liner 	3.4	5.0	95	5	092064
Splitless, Straight-through Liner 	2.6	5.0	95	5	0920861
Split / Splitless with Single Taper 	3.4	5.0	95	5	092071 [†]
Split / Splitless with Middle Gooseneck 	3.4	5.0	95	5	092077
17A (SP-17 Injector) & 2014					
Split / Splitless FocusLiner™ 	3.4	5.0	95	5	092062
Split / Splitless Tapered FocusLiner™ 	3.4	5.0	95	5	092068
Split / Splitless with Recessed Gooseneck & Quartz Wool 	3.4	5.0	95	5	092061
Split, Straight-through Liner 	3.4	5.0	95	5	092064
Split / Splitless with Middle Gooseneck 	3.4	5.0	95	5	092085
Splitless, Straight-through Liner 	2.6	5.0	95	5	0920861
Direct, for 0.53mm ID Column 	2.6	5.0	95	5	092087
SPME Liner 	0.75	5.0	95	5	092089
14, 15A & 16 (SPL-14 Injector)					
Split / Splitless FocusLiner™ 	3.4	5.0	99	5	092065
Split / Splitless Tapered FocusLiner™ 	3.4	5.0	99	5	092066
Split / Splitless with 2.0mm Middle Gooseneck 	3.4	5.0	99	5	092082
Split / Splitless with Single Taper 	3.4	5.0	99	5	0920831
Splitless, Direct, Wide Bore for 9A & 16A GCs 	3.4	5.0	139	5	092084
Graphite Sealing Ring – Can be used at temperatures up to 450°C					
For 14, 15A & 16 (SPL-14 Injector)				10	0726001
For 17A (SPL-17 Injector)				10	0726007
Viton O-Ring – Can be used at temperatures up to 300°C					
For 2010 & 2014 (SPL-2010 Injector & SPL-2014 Injector)				10	0726533

[†] = Can be used in 2014 injector.

Why choose SGE Syringes?

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- Are leak tested
- Feature a hard wearing scale
- Use a frosted backing for clearer measurement
- Have removable or fixed needle options
- Needle gauge, length, style and tip options



Why choose SGE Septa?

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- Optimized for instruments and applications
- Wide range to suit your equipment



Why choose SGE deactivated Liners?

- Liners deactivated using a gas phase deactivation
- Supplied in blister packs to prevent contamination
- FocusLiners™ provide superior reproducibility compared to other liners



Request a sample pack

Why Choose SilTite™ Ferrules?

- Never needs re-tightening, even after temperature cycling
- No contamination from Vespel® or graphite materials - 100 % metal
- Ferrule remains permanently fixed to the column but does not adhere to the SilTite™ nut
- Ideal for high pressure applications
- Also available for injector interfaces
- > 500 °C maximum temperature
- Patent Pending



Request a sample pack

Electron Multipliers

MS Description	Analyzer Type	Technique	Part No.
QP5000	Quadrupole	GC-MS	14533

HANDY TIP 6

If you inject small volumes (1µL or less) you can greatly improve your peak shape by using a narrow bore inlet liner

Quick Pick for Thermo Scientific GC

Thermo Scientific / CE Instruments / Fisons Autosampler Syringes

All needles have a cone point style.

SGE SUPPLIES
FROM
INJECTOR
TO
DETECTOR

Autosampler				Needle Specifications						
TriPlus	AS3000	AS2000	AS200/800	Volume	Length (mm)	Gauge (OD)	Syringe Code	Syringe Part No.	Needle Part No.	Pack Size
				Fixed Needle						
•				5µL	50	26 (0.47)	5FX-5C	001105	-	-
•	•			10µL	50	23 (0.63)	10F-C/T-GT-5/0.63C	002987	-	-
•	•	•		10µL	80	23 (0.63)	10F-C/T-8/0.63C	002989	-	-
•	•	•	•	10µL	80	26 (0.47)	10F-C/T-8/0.47C	002992	-	-
•	•	•	•	10µL	50	25 (0.50)	10F-C/T-5/0.50C	019050	-	-
•	•	•	•	10µL	50	23 (0.63)	10F-C/T-5/0.63C	002981	-	-
•	•	•	•	10µL	50	26 (0.47)	10F-C/T-5/0.47C	002980	-	-
				Removable Needle						
•	•	•		10µL	50	26 (0.47)	10R-C/T-5/0.47C	002982	037785	2
•	•	•	•	10µL	50	23 (0.63)	10R-C/T-5/0.63C	002984	037787	2
•	•	•	•	10µL	80	26 (0.47)	10R-C/T-8/0.47C	002993	031535	3
•	•			5µL	50	26 (0.47)	0.5bnr-C/T-5/0.47C	000490	033770	-
•	•			5µL	50	23 (0.63)	0.2BNRC/T-5/0.63C	000492	033772	-

Septa

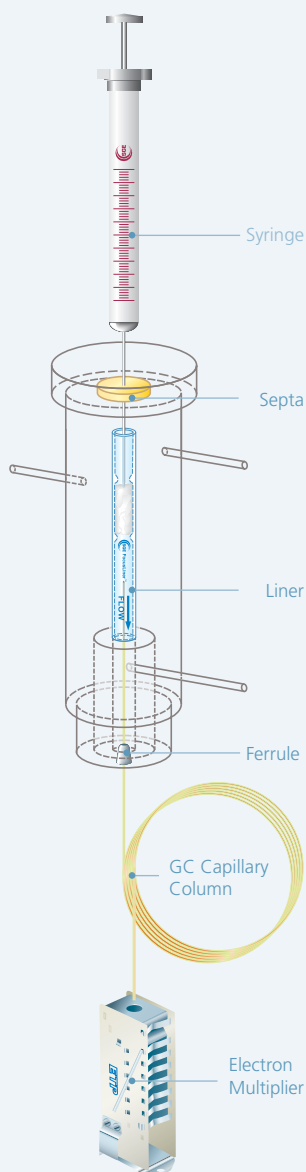
Instrument	Diameter (mm)	Septum Type	Pack Size	Part No.
8000 Series, FOCUS, TRACE/ULTRA GC™				
	17	TCS	50	0418491
	17	Auto-Sep T™	25	041886

Ferrules

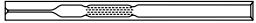

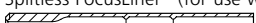
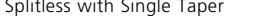
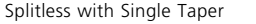

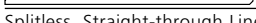
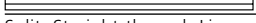
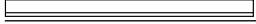

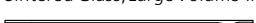


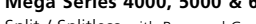


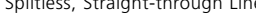

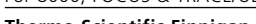



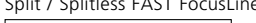

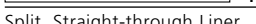

Material	Column ID	Ferrule ID	Pack Size	Part No.
15% Graphite / 85% Vespel® Ferrules				
For All Injectors & Detectors (Not for 8000 Series, Focus, Trace/Ultra GC)				
	0.1-0.25mm	0.4mm	10	0726549
	0.32mm	0.5mm	10	0726557
	0.53mm	0.8mm	10	0726548
	1/8" OD Packed Columns	1/8"	10	072669
	1/4" OD Packed Columns	1/4"	10	072667
For All Focus, Trace/Ultra Injectors & Detectors at atmospheric pressure e.g. FID (Not for GC-MS)				
	0.1-0.25mm	0.4mm	10#	072696
	0.32mm	0.5mm	10#	072697
	0.53mm	0.8mm	10#	072698
Brass Nut for Focus, Trace/Ultra GC Injectors & Non-MS Detectors				
			2	1034085
100% Graphite Ferrules				
For Injectors & Detectors at atmospheric pressure e.g. FID (Not for GC-MS)				
	0.1-0.32mm	0.5mm	10	072619
	0.45-0.53mm	0.8mm	10	072614
	1/8" OD Packed Columns	1/8"	10	072622
	1/4" OD Packed Columns	1/4"	10	072621
SilTite™ Metal Ferrules				
For GC-MS Interface Connections (Starter Kit)				
	0.1-0.25mm	0.4mm	10*	073450
	0.32mm	0.5mm	10*	073451
	0.53mm	0.8mm	10*	073452
	1/32"	0.81mm	10*	073453
Replacement SilTite™ Metal Ferrules				
For All GC-MS Interface Connections				
	0.1-0.25mm	0.4mm	10	073330
	0.32mm	0.5mm	10	073331
	0.53mm	0.8mm	10	073332
	1/32"	0.81mm	10	073333
Replacement SilTite™ Nuts				
			5	073230

To be used in combination with brass nut (Part No. 1034085)

* Includes 10 ferrules, 2 SilTite™ nuts.



Inlet Liners

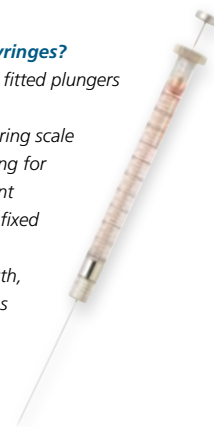
Description	ID (mm)	OD (mm)	Length (mm)	Pack Size	Part No.
ThermoQuest 8000, FOCUS & TRACE/ULTRA™					
Splitless FocusLiner™ (for use with 70mm Needle)	5.0	8.0	105	5	092045
 TOP					
Split FocusLiner™ (for use with 50mm Needle)	5.0	8.0	105	5	092048
 TOP					
Splitless FocusLiner™ (for use with 50mm Needle)	5.0	8.0	105	5	092049
 TOP					
Splitless with Single Taper	3.0	8.0	105	5	092141
 TOP					
Splitless with Single Taper	5.0	8.0	105	5	092144
 TOP					
SPME Liner	0.8	8.0	105	5	092148
 TOP					
Splitless, Straight-through Liner	3.0	8.0	105	5	092147
 TOP					
Split, Straight-through Liner	5.0	8.0	105	5	092150
 TOP					
Splitless FocusLiner™ (for use with 70mm Needle)	5.0	8.0	105	5	092046
 TOP				25	09204625
Sintered Glass, Large Volume Injection (LVI) Liner	0.78/1.8	2.75	120	5	092155
 TOP					
PTV Liner					
Trace 2000 PTV Liner	1.75	2.75	120	5	092142
 TOP					
Mega Series 4000, 5000 & 6000					
Split / Splitless with Recessed Gooseneck & Quartz Wool	3.0	5.0	79.5	5	092041
 TOP					
Split, Straight-through Liner	3.0	5.0	79.5	5	092044
 TOP					
Splitless, Straight-through Liner	2.0	5.0	79.5	5	092047
 TOP					
Graphite Sealing Ring					
For 8000, FOCUS & TRACE/ULTRA™ GCs	8.0			10	0726004
Thermo Scientific Finnigan 9001 and GCQ					
Thermo Scientific Finnigan 9001 & GCQ GC's accept all Agilent Technologies 6.3mm OD Liners.					
Split/Splitless FocusLiner™	4.0	6.3	78.5	5	092002
 TOP				25	092219
Split / Splitless Tapered FocusLiner™	4.0	6.3	78.5	5	092003
 TOP				25	092011
Split / Splitless FAST FocusLiner™	2.3	6.3	78.5	5	092005
 TOP				25	092008
Split / Splitless Tapered FAST FocusLiner™	2.3	6.3	78.5	5	092111
 TOP				25	092115
Split, Straight-through Liner	4.0	6.3	78.5	5	092007
 TOP				25	092222
Split with Quartz Wool	4.0	6.3	78.5	5	092001
 TOP				25	092220
Split / Splitless with Single Taper	4.0	6.3	78.5	5	092017
 TOP				25	092229
Splitless with Single Taper & Quartz Wool	4.0	6.3	78.5	5	092019
 TOP				25	092218
Split / Splitless with Double Taper	4.0	6.3	78.5	5	092018
 TOP				25	092230
Direct Straight-through Liner	1.2	6.3	78.5	5	092016
 TOP				25	092224
Splitless with Recessed Gooseneck	2.0	6.3	78.5	5	092013
 TOP					
Split/Splitless with Recessed Gooseneck & Quartz Wool	4.0	6.3	78.5	5	092010
 TOP				25	092223

Electron Multipliers

MS Description	Analyzer Type	Technique	Part No.
Bench-top ion trap pre-GCQ	Ion Trap	GC-MS	14138
4000 (PPINIC) Incos 50	Quadrupole	GC-MS	14139
DSQ/Polaris	Quadrupole	GC-MS	14633

Why choose SGE Syringes?

- Feature individually fitted plungers
- Are leak tested
- Feature a hard wearing scale
- Use a frosted backing for clearer measurement
- Have removable or fixed needle options
- Needle gauge, length, style and tip options



Why choose SGE Septa?

- Low bleed
- Optimized for instruments and applications
- Wide range to suit your equipment



Why choose SGE deactivated Liners?

- Liners deactivated using a gas phase deactivation
- Supplied in blister packs to prevent contamination
- FocusLiners™ provide superior reproducibility compared to other liners



[Request a sample pack](#)

Why Choose SilTite™ Ferrules?

- Never needs re-tightening, even after temperature cycling
- No contamination from Vespel® or graphite materials - 100 % metal
- Ferrule remains permanently fixed to the column but does not adhere to the SilTite™ nut
- Ideal for high pressure applications
- Also available for injector interfaces
- > 500 °C maximum temperature
- Patent Pending



[Request a sample pack](#)

Having problems with reproducibility? Try FocusLiner™. Its unique design ensures the tip of the needle is wiped every time you inject a sample. This makes the injection process more predictable and reproducible.

HANDY TIP 7

Quick Pick for Varian GC

Autosampler Syringes

Volume	Length	Needle Gauge (OD mm)	Tip Style	Syringe Code	Syringe Part No.	Pack Size	Needle Part No.	Pack Size	Plunger Part No.	Pack Size
Varian 8035, 8100 and 8200										
Fixed Needle										
10µL <i>Gas Tight</i>	53	25 (0.5)	S/Hole	10F-GT-VA8X-II	002923	1	-	-	031218	1
Removable Needle										
1µL*	51	26 (0.47)	Cone	1BR-VA8X	000655	1	034720	1**	-	-
10µL <i>Gas Tight</i>	53	25 (0.5)	S/Hole	10R-GT-VA8X-II	002924	1	037777	1	031218	1
Needle Alternatives for P/N 002924										
	50	25 (0.5)	Bevel	N10-VA8035-II	-	1	037776	2	-	-
	105	-	OC	N10-VA8035-0.17-II	-	1	037778	2	-	-
	53	23 (0.63)	S/Hole	N10-VA8X00H-0.63-II	-	1	037779	2	-	-
	53	25 (0.5)	S/Hole	N10-VA800H-II(0.2)	-	1	037780	1	-	-
100µL <i>Gas Tight</i>	53	25 (0.5)	S/Hole	100R-GT-VA8X	005921	1	038745	1	031824	1
Varian CP-8400/8410, CP-9010/9050										
Fixed Needle										
10µL	50	26 (0.47)	Bevel	10F-VA8400-5/0.47	002950	1	-	-	-	-
10µL	50	23 (0.63)	Cone	10F-C/T-5/0.63C	002981	1	-	-	-	-
Removable Needle										
10µL	50	26 (0.47)	Cone	10R-C/T-5/0.47C	002982	1	037785	2	-	-

*Not suitable for 8200 autosampler. **Denotes Plunger and Needle Kit.

Septa

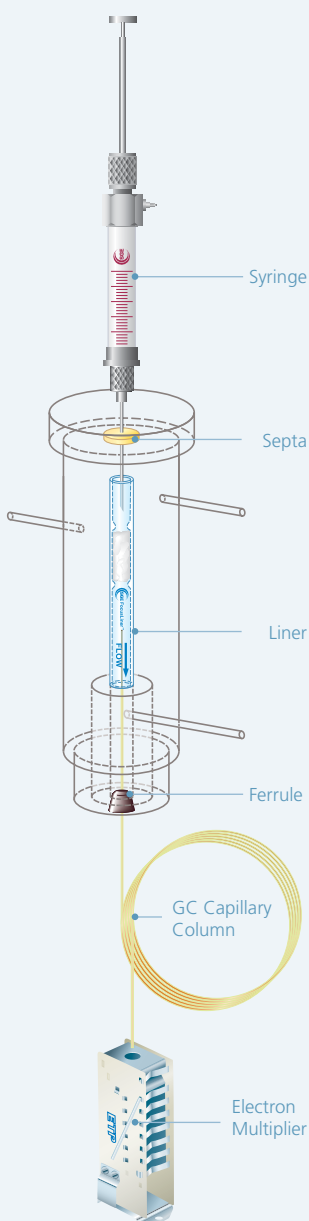
Instrument	Diameter (mm)	Septum Type	Pack Size	Part No.
1177 Injector	9	CS	50	041824
	9	TCS	50	041844
	9	TCS Pre-drilled	50	041854
	9	Auto-Sep T™	25	041879
1040, 1041, 1060 & 1061 Injectors	9.5	CS	50	0418240
	9.5	TCS	50	0418440
	9.5	Auto-Sep™	25	041871
	9.5	Auto-Sep T™	100	041881
1075, 1077, 1078, 1079 Injectors & 1093, 1094 SPI Injectors	11	CS	50	041826
	11	TCS	50	041846
	11	Auto-Sep™	25	041872
	11	Auto-Sep T™	25	041882
	11	Auto-Sep T™	100	041883

Ferrules



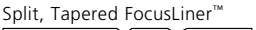


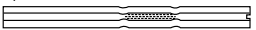
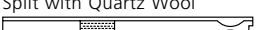
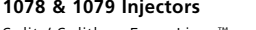

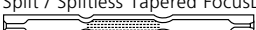
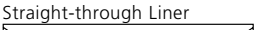
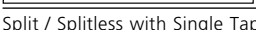


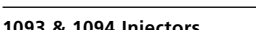


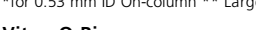

Material	Column ID	Ferrule ID	Pack Size	Part No.
15% Graphite / 85% Vespel® Ferrules				
For GC-MS & Detectors at atmospheric pressure e.g. FID				
	0.1-0.25mm	0.4mm	10	072663
	0.32mm	0.5mm	10	072654
	0.53mm	0.8mm	10	072655
Packed Columns				
	1/8" OD Packed Columns	1/8"	10	072669
	1/4" OD Packed Columns	1/4"	10	072667
100% Graphite Ferrules – For Injectors & Detectors at atmospheric pressure e.g. FID				
	0.1-0.32mm	0.5mm	10	072627
	0.45-0.53mm	0.8mm	10	072626
	1/8" OD Packed Columns	1/8"	10	072622
	1/4" OD Packed Columns	1/4"	10	072621
SilTite™ Metal Ferrules – For GC-MS Interface Connection (Starter Kit)				
	0.1-0.25mm	0.4mm	10*	073300
	0.32mm	0.5mm	10*	073301
	0.53mm	0.8mm	10*	073302
	1/32"	0.81mm	10*	073303
Nuts for Varian Injector			2	1034060
Replacement SilTite™ Ferrules For GC-MS Interface Connection				
	0.1-0.25mm	0.4mm	10	073220
	0.32mm	0.5mm	10	073221
	0.53mm	0.8mm	10	073222
	1/32"	0.81mm	10	073219
Replacement SilTite™ Nuts			5	073231

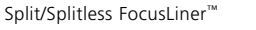


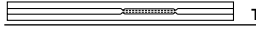
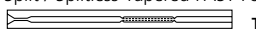
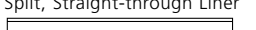

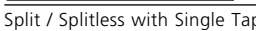
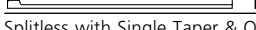

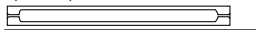
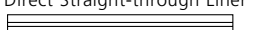
*Includes 10 ferrules, 2 SilTite™ nuts.

SGE SUPPLIES
FROM
INJECTOR
TO
DETECTOR



Inlet Liners

Description	ID (mm)	OD (mm)	Length (mm)	Pack Size	Part No.
1075 & 1077 Injectors					
Split FocusLiner™ 	4.0	6.3	72	5	092022
Splitless FocusLiner™* 	4.0	6.3	74	5	092026
Split, Tapered FocusLiner™ 	4.0	6.3	72	5	092025
Split FocusLiner™* 	4.0	6.3	72	5	092028
Split, FAST FocusLiner™ 	2.3	6.3	72	5	092113
Split with Quartz Wool 	4.0	6.3	72	5	092021
Splitless, Slots at Both Ends 	2.0	6.3	74	5	092024
				25	092228
*with Top-end Restriction					
1078 & 1079 Injectors					
Split / Splitless FocusLiner™ 	3.4	5.0	54	5	092037
Split / Splitless Tapered FocusLiner™ 	3.4	5.0	54	5	092036
Straight-through Liner 	0.5	5.0	54	5	092031
Split / Splitless with Single Taper 	3.4	5.0	54	5	092038
Splitless with Single Taper 	2.0	5.0	54	5	092039
Sintered Glass** 	1.8/3.4	5.0	54	5	092245
SPME liner 	0.75	5.0	54	5	092117
1093 & 1094 Injectors					
SPI Liner, (Restriction=0.25mm) 	0.5	4.6	54	5	092027
SPI Liner, (Restriction=0.25mm) 	0.8	4.6	54	5	092030
SPI Liner, (Restriction=0.5mm)* 	0.8	4.6	54	5	092034
*for 0.53 mm ID On-column ** Large Volume Injection (LVI) Liner					
Viton O-Ring					
For 1177 injector, can be used at temperatures up to 300 °C				10	0726532
Graphite Sealing Rings					
For 1075 & 1077 Injectors				10	072601
For 1078 & 1079 Injectors				10	0726217
Packed Column Injectors					
Packed Column Liner* 	3	6.3	72	1	092232
Packed Column Liner* 	3	6.3	72	5	092233
* for Varian Flash Injectors					

Description	ID (mm)	OD (mm)	Length (mm)	Pack Size	Part No.
1177 Injector					
1177 injector accepts all Agilent Technologies 6.3mm OD liners.					
Split/Splitless FocusLiner™ 	4.0	6.3	78.5	5	092002
				25	092219
Split / Splitless Tapered FocusLiner™ 	4.0	6.3	78.5	5	092003
				25	092011
Split / Splitless FAST FocusLiner™ 	2.3	6.3	78.5	5	092005
				25	092008
Split / Splitless Tapered FAST FocusLiner™ 	2.3	6.3	78.5	5	092111
				25	092115
Split, Straight-through Liner 	4.0	6.3	78.5	5	092007
				25	092222
Split with Quartz Wool 	4.0	6.3	78.5	5	092001
				25	092220
Split / Splitless with Single Taper 	4.0	6.3	78.5	5	092017
				25	092229
Splitless with Single Taper & Quartz Wool 	4.0	6.3	78.5	5	092019
				25	092218
Split / Splitless with Double Taper 	4.0	6.3	78.5	5	092018
				25	092230
Direct Straight-through Liner 	1.2	6.3	78.5	5	092016
				25	092224
Splitless with Recessed Gooseneck 	2.0	6.3	78.5	5	092013
Split/Splitless* 	4.0	6.3	78.5	5	092010
				25	092223
* with Recessed Gooseneck & Quartz Wool					

Electron Multipliers

MS Description	Part No.
Saturn (Pre-2000)	14138
Saturn 2000, 2100 & 2200	14147

Why choose SGE deactivated Liners?

- Liners deactivated using a gas phase deactivation
- Supplied in blister packs to prevent contamination
- FocusLiners™ provide superior reproducibility compared to other liners



Request a sample pack

Why Choose SiITite™ Ferrules?

- Never needs re-tightening, even after temperature cycling
- No contamination from Vespel® or graphite materials - 100% metal
- Ferrule remains permanently fixed to the column but does not adhere to the SiITite™ nut
- Ideal for high pressure applications
- Also available for injector interfaces
- > 500 °C maximum temperature
- Patent Pending



Request a sample pack

HANDY TIP 8

Did you know that single tapered liners transfer high boiling point analytes more effectively to your column than straight through liners?

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