

Choose for
Your Instrument



GC Supplies - Instrument Quick Pick Guide

- Agilent Technologies
- Bruker/Scion (Varian)
- PerkinElmer
- Shimadzu
- Thermo Scientific

GC Supplies - Instrument Quick Pick Guide

Choose for Your Instrument

Your chromatography analysis does not end with the selection of the GC column. The combination of components selected for your instrument also make an important contribution to successful separations. Choose SGE to improve your chromatography.

Sample Introduction – Syringes

The SGE Diamond Syringe Range offers significantly improved levels of durability, clarity and accuracy.

SGE manual and autosampler syringes are designed for optimal sample introduction.

Choose from a comprehensive range of syringe options including plunger protection, removable or fixed needles, a range of needle gauge and length options as well as needle-tip style alternatives.

Sample Introduction – Septa

The role of septa for GC analysis is key as many chromatographic problems are caused by use of inappropriate septa material or inappropriate handling of the septa.

Desired septa attributes:

- Reliably seal against the carrier gas pressure in the inlet.
- Capable of being pierced and resealed time after time.
- Capable of being pierced by the syringe needle without pieces being deposited in the GC inlet system.
- Must not contaminate or bleed material into the chromatographic system.

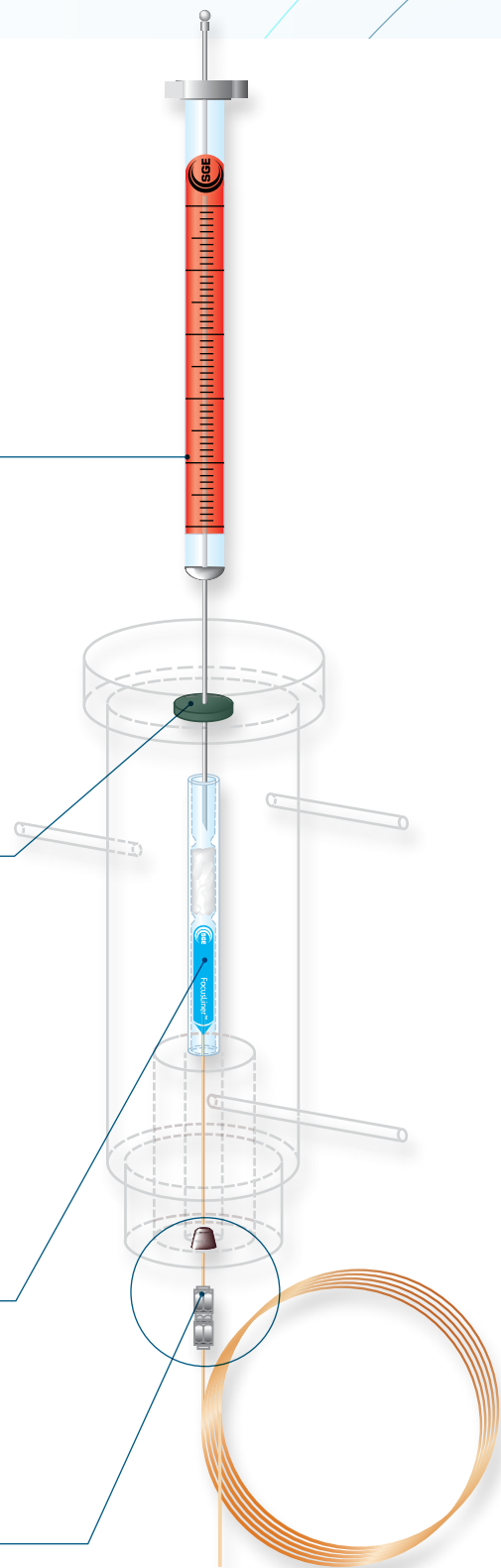
Sample Introduction – GC Inlet Liners

The GC Inlet liner is where the sample is introduced and vaporized into the gaseous phase. The design of the liner is crucial, as is liner deactivation, to ensure reproducible and accurate chromatography.

Sample Introduction – GC Connections (ferrules and fittings)

SGE GC Connections are designed to minimize time spent on installation, and are suitable for a wide range of applications.

Poorly defined or selected connections can lead to an increase in dead volume, leaks and mismatched tubing sizes after temperature cycling.



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Choose SGE
to improve your
chromatography.

Autosampler Syringes

All needles are 42 mm long with a cone tip.

Agilent 7673, 7683, 7693A & 6850 ALS

Volume	Needle Gauge (OD mm)	Syringe Code	Syringe Cat No.	Pack Size	Spare Needle Cat No.	Pack Size	Spare Plunger Cat No.	Pack Size
Fixed Dual Gauge Needle								
5 µL	23-26s (0.63/0.47)	5F-AG-0.63/0.47C	60362-718	1	-	-	-	-
10 µL	23-26s (0.63/0.47)	10F-AG-0.63/0.47C	60362-722	1	-	-	-	-
10 µL Gas Tight	23-26s (0.63/0.47)	10F-AG-GT-0.63/0.47C	60362-726	1	-	-	60362-220	2
Fixed Straight Needle								
5 µL	26 (0.47)	5F-AG-0.47C	60361-050	1	-	-	-	-
5 µL (m)	23 (0.63)	5F-AG-0.63C	60361-054	1	-	-	-	-
10 µL	26 (0.47)	10F-AG-0.47C	60361-104	1	-	-	-	-
10 µL (m)	23 (0.63)	10F-AG-0.63C	60361-110	1	-	-	-	-
10 µL (m) Gas Tight	23 (0.63)	10F-AG-GT-0.63C	60361-112	1	-	-	60362-220	2
Removable Dual Gauge Needle								
0.5 µL	23-26s (0.63/0.47)	0.5BR-AG-0.63/0.47C	60362-736	1	60362-748	1*	-	-
10 µL Gas Tight	23-26s (0.63/0.47)	10R-AG-GT-0.63/0.47C	60362-742	1	60362-746	2	14225-526	2
Removable Straight Needle								
0.5 µL	26 (0.47)	0.5BR-AG-0.47C	60361-008	1	60361-272	1*	-	-
0.5 µL (m)	23 (0.63)	0.5BR-AG-0.63C	60361-010	1	60361-274	1*	-	-
1 µL	23 (0.63)	1BR-AG-0.63C	60362-624	1	89400-928	1*	-	-
10 µL	26 (0.47)	10R-AG-0.47C	60361-108	1	14225-728	2	-	-
10 µL (m)	23 (0.63)	10R-AG-0.63C	60361-116	1	60361-310	2	-	-

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

* Denotes Spare Needle and Plunger kit.



Septa

Choose from a number of different septa types:

- GP = For non-demanding routine applications.
- EC = Combines significantly longer injection life, low bleed and low injection port adhesion.
- MN = Premium septa for autosamplers, up to 400 injections per septum.
- HT = Bleed and temperature optimized, combined with outstanding mechanical properties.

Type	Material	Durability	Resealing	Solvent Resistance	Tear Resistance	Maximum Temperature
GP	Silicone	Good	Good	Excellent	Good	200 °C
EC	High Temperature Silicone	Excellent	Excellent	Excellent	Excellent	400 °C
MN	High Temperature Silicone	Excellent	Excellent	Excellent	Excellent	400 °C
HT	BTO Silicone	Excellent	Excellent	Excellent	Excellent	400 °C

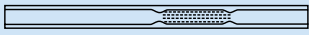

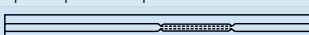
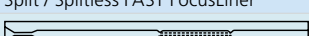
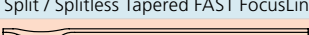


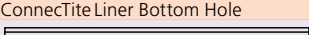
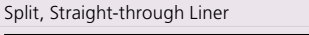
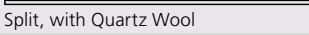
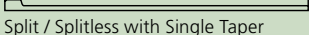
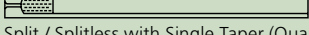
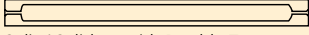

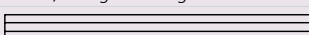
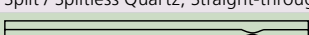
Diameter (mm)	Type	Pack Size	Cat No.
For Agilent 7620, 5790, 5880, 5890			
5	GP	50	60361-492
5	MN	50	14225-846
For Agilent 5700, 5800, 5900			
9.5	GP	50	60361-502
9.5	EC	25	89205-414
9.5	HT	50	89205-428
For Agilent 7890, 6890, 5890, 5880, 4890, 6850			
11	GP	50	60361-506
11	EC	25	89205-416
11	MN	50	14225-856
11	HT	25	89205-430
For Agilent 5750, 710, 720, 810, 7610			
12.5	GP	48	60361-510
12.5	HT	24	89205-434
12.5	EC	24	89205-420



Agilent Technologies

GC Supplies - Instrument Quick Pick Guide

Inlet Liners

Description and Geometry	OD (mm)	ID (mm)	Length (mm)	Pack Size	Cat No.
For Agilent 5890, 6850, 6890, 7890 and HP4890					
 Split / Splitless FocusLiner	6.3	4	78.5	5	60362-506
				25	60362-590
 Split / Splitless Taper FocusLiner	6.3	4	78.5	5	60362-664
				25	14226-448
 Split / Splitless FAST FocusLiner	6.3	2.3	78.5	5	14226-444
				25	14226-446
 Split / Splitless Tapered FAST FocusLiner	6.3	2.3	78.5	5	14226-470
				25	14226-474
 ConnectTite Liner Standard	6.3	4	78.5	5	89205-574
 ConnectTite Liner Top Hole	6.3	4	78.5	5	89205-578
 ConnectTite Liner Bottom Hole	6.3	4	78.5	5	89205-582
 Split, Straight-through Liner	6.3	4	78.5	5	60362-510
				25	60362-594
 Split, with Quartz Wool	6.3	4	78.5	5	60362-504
				25	60362-592
 Split / Splitless with Single Taper	6.3	4	78.5	5	60362-516
				25	60362-602
 Split / Splitless with Single Taper (Quartz Wool)	6.3	4	78.5	5	60362-520
				25	87003-016
 Split / Splitless with Double Taper	6.3	4	78.5	5	60362-518
				25	60362-604
 Direct, Straight-through Liner	6.3	1.2	78.5	5	60362-514
				25	60362-596
 Split / Splitless Quartz, Straight-through Liner	6.1	2	78.5	5	60362-508
 Splitless with Recessed Gooseneck	6.3	2	78.5	5	14226-450
 Split / Splitless Recessed Gooseneck (Quartz Wool)	6.3	4	78.5	5	60362-512
				25	14226-482



- Taper / Gooseneck
- FocusLiner
- Taper FocusLiner
- ConnectTite
- Straight
- Double Taper
- PTV/LVI

O-rings and Sealing Rings

Description	Usage	Pack Size	Cat No.
Viton O-ring	Temperatures up to 300 °C. Suitable for liners with OD of 6.3 mm.	10	60361-576
Graphite Sealing Ring	Temperatures up to 450 °C. Suitable for all inlet liners above except 092004 and 09200401.	10	60362-682
Graphite Sealing Ring	Temperatures up to 450 °C. Suitable for use with liners 092004 and 09200401.	10	60362-684

SilTite® FingerTite Ferrules

Description	Column ID	Ferrule ID	Pack Size	Cat No.
SilTite FingerTite Agilent INJ / FID Kit	0.1-0.25 mm	0.4 mm	*	97051-946
SilTite FingerTite Agilent Capillary / FID Kit	0.1-0.25 mm	0.4 mm	*	89232-154
SilTite FingerTite Agilent INJ / MS Kit	0.1-0.25 mm	0.4 mm	*	97051-948
SilTite FingerTite Agilent INJ / FID Kit	0.53 mm	0.7 mm	*	89232-150
SilTite FingerTite Agilent Injector Kit	0.53 mm	0.7 mm	*	89232-152
SilTite FingerTite Agilent Capillary / FID Kit	0.53 mm	0.7 mm	*	89232-156
SilTite FingerTite Agilent Capillary Injector Kit	0.53 mm	0.7 mm	*	89232-158
Replacement Parts				
SilTite FingerTite Ferrule 0.4 mm	0.1-0.25 mm	0.4 mm	10	97051-958
SilTite FingerTite Ferrule 0.5 mm	0.32 mm	0.5 mm	10	97051-960
SilTite FingerTite Ferrule 0.7 mm	0.53 mm	0.7 mm	10	89232-196
SilTite FingerTite Blanking Ferrule	–	–	2	97051-962
SilTite FingerTite Female Nut	–	–	5	97051-964
SilTite FingerTite INJ Base Seal	0.1-0.25 mm	–	2	97051-966
SilTite FingerTite INJ Base Seal	0.53 mm	–	2	97051-966
SilTite FingerTite Capillary Adaptor	–	–	1	89232-140
SilTite FingerTite MS Adaptor	–	–	1	89232-142
SilTite FingerTite FID Detector	–	–	1	89232-144
SilTite FingerTite Injector	0.1-0.25 mm	–	1	89232-146

* Each starter kit includes all the parts necessary to convert one GC system (one injector and one detector) to the SilTite FingerTite system. In addition there are five SilTite FingerTite nuts, ten SilTite FingerTite ferrules, and a ferrule install tool which allows you to seat the ferrule in the correct position on the capillary column.



Ferrules

Instrument	Column ID	Ferrule ID	Pack Size	Cat No.
15% Graphite / 85% Vespel® Ferrules				
Injectors & Detectors at atmospheric pressure e.g. FID	0.1-0.25 mm	0.4 mm	10	60361-614
	0.32 mm	0.5 mm	10	60361-616
	0.53 mm	0.8 mm	10	60361-618
	for 1/8" OD Packed Columns	1/8"	10	60361-604
	for 1/4" OD Packed Columns	1/4"	10	60361-602
GC-MS Interface Connection	0.1-0.25 mm	0.4 mm	10	60361-600
	0.32 mm	0.5 mm	10	60361-578
	0.53 mm	0.8 mm	10	60361-586
100% Graphite Ferrules				
Injectors & Detectors at atmospheric pressure e.g. FID (Not for GC-MS)	0.1-0.32 mm	0.5 mm	10	60362-634
	0.45-0.53 mm	0.8 mm	10	60362-636
	for 1/8" OD Packed Columns	1/8"	10	60361-546
	for 1/4" OD Packed Columns	1/4"	10	60362-686
SilTite® Metal Ferrules				
GC-MS Interface Connection (Starter Kit)	0.1-0.25 mm	0.4 mm	10*	14226-368
	0.32 mm	0.5 mm	10*	14226-370
	0.53 mm	0.8 mm	10*	14226-372
Split / Splitless Injectors (Starter Kit)	0.1-0.25 mm	0.4 mm	10#	14226-396
	0.32 mm	0.5 mm	10#	14226-398
	0.45-0.53 mm	0.8 mm	10#	14226-400
	1/32"	0.81 mm	10#	10799-744
Replacement SilTite® Metal Ferrules				
All Connections	0.1-0.25 mm	0.4 mm	10	14226-376
	0.32 mm	0.5 mm	10	14226-378
	0.53 mm	0.8 mm	10	14226-380
	1/32"	0.81 mm	10	10799-820
Replacement SilTite® Nuts				
GC-MS Interface Connection	–	–	5	14226-384
Split / Splitless Injector	–	–	5	14226-388
Replacement SilTite® Base Seals				
Split / Splitless Injector	–	–	2	14226-420
	–	–	10	14226-422



* Includes ten ferrules, two SilTite nuts. # Includes ten ferrules, two SilTite nuts and two SilTite Inlet Base Seals.

Bruker/Scion (Varian) GC Supplies - Instrument Quick Pick Guide



Autosampler Syringes

Volume	Length (mm)	Needle Gauge (OD mm)	Tip Style	Syringe Code	Syringe Cat No.	Pack Size	Needle Cat No.	Pack Size	Plunger Cat No.	Pack Size
Bruker/Scion (Varian) 8035, 8100 and 8200										
Removable Needle										
1 µL*	51	26 (0.47)	Cone	1BR-VA8X	60361-028	1	14225-632	1**	-	-
10 µL Gas Tight	53	25 (0.5)	S/Hole	10R-GT-VA8X-II	60361-136	1	60361-322	1	60362-214	1
Needle Alternatives for P/N 002924										
-	50	25 (0.5)	Bevel	N10-VA8035-II	-	1	60361-320	2	-	-
-	53	23 (0.63)	S/Hole	N10-VA8X00H-0.63-II	-	1	60361-360	2	-	-
-	53	25 (0.5)	S/Hole	N10-VA800H-II(0.2)	-	1	60362-234	1	-	-
Bruker/Scion (Varian) CP-8400/8410, CP-9010/9050										
Fixed Needle										
10 µL	50	26 (0.47)	Bevel	10F-VA8400-5/0.47	14233-544	1	-	-	-	-
10 µL	50	23 (0.63)	Cone	10F-VA8400/BT-5/0.63C	89404-526	1	-	-	-	-
Removable Needle										
10 µL Gas Tight	50	26 (0.47)	Cone	10R-BT-GT-0.47C	30621-122	1	14225-696	2	30621-128	2

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

Septa

Choose from a number of different septa types:



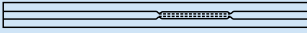
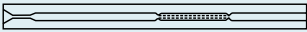
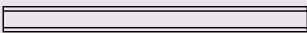

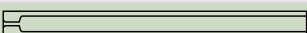
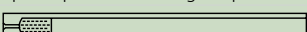
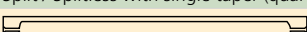
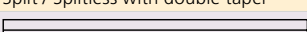
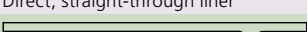
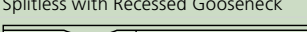





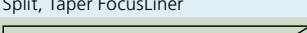
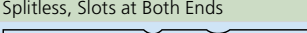
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- EC = Combines significantly longer injection life, low bleed and low injection port adhesion.
- MN = Premium septa for autosamplers, up to 400 injections per septum.
- HT = Bleed and temperature optimized, combined with outstanding mechanical properties.

Type	Material	Durability	Resealing	Solvent Resistance	Tear Resistance	Maximum Temperature
GP	Silicone	Good	Good	Excellent	Good	200 °C
EC	High Temperature Silicone	Excellent	Excellent	Excellent	Excellent	400 °C
MN	High Temperature Silicone	Excellent	Excellent	Excellent	Excellent	400 °C
HT	BTO Silicone	Excellent	Excellent	Excellent	Excellent	400 °C

Diameter (mm)	Type	Pack Size	Cat No.
For Varian / Bruker 1177 Injector			
9	GP	50	60361-500
9	EC	25	89205-412
9	MN	50	14225-850
9	HT	25	89205-426
For Varian / Bruker 1040, 1041, 1060, 1061 injector			
9.5	GP	50	60361-502
9.5	EC	25	89205-414
9.5	HT	50	89205-428
For Varian / Bruker 1040, 1041, 1060, 1061 injector			
11	GP	50	60361-506
11	EC	25	89205-416
11	MN	48	14225-856
11	HT	25	89205-430



Inlet Liners

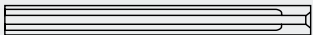


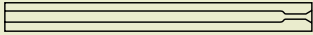
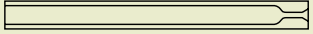


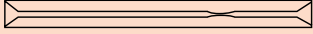

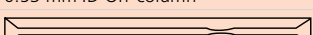
Description and Geometry	OD (mm)	ID (mm)	Length (mm)	Pack Size	Cat No.
For 1177 Injector					
 Split / Splitless FocusLiner	6.3	4	78.5	5	60362-506
				25	60362-590
 Split / Splitless Taper FocusLiner	6.3	4	78.5	5	60362-664
				25	14226-448
 Split / Splitless FAST FocusLiner	6.3	2.3	78.5	5	14226-444
				25	14226-446
 Split / Splitless Tapered FAST FocusLiner	6.3	2.3	78.5	5	14226-470
				25	14226-474
 Split, straight-through liner	6.3	4	78.5	5	60362-510
				25	60362-594
 Split, with quartz wool	6.3	4	78.5	5	60362-504
				25	60362-592
 Split / Splitless with single taper	6.3	4	78.5	5	60362-516
				25	60362-602
 Split / Splitless with single taper (quartz wool)	6.3	4	78.5	5	60362-520
				25	87003-016
 Split / Splitless with double taper	6.3	4	78.5	5	60362-518
				25	60362-604
 Direct, straight-through liner	6.3	1.2	78.5	5	60362-514
				25	60362-596
 Splitless with Recessed Gooseneck	6.3	2	78.5	5	14226-450
				25	60362-512
 Split / Splitless Recessed Gooseneck (quartz wool)	6.3	4	78.5	25	14226-482
For 1075/1077 Injector					
 Split, FAST FocusLiner	6.3	2.3	72	1	10799-748
 Split with Quartz Wool	6.3	4	72	5	60362-522
				25	10001-536
 Split FocusLiner with Top-end Restriction	6.3	4	72	5	14226-454
 Splitless FocusLiner with Top-end Restriction	6.3	4	74	1	10799-848
 Split, Taper FocusLiner	6.3	4	72	1	10799-846
 Splitless, Slots at Both Ends	6.3	2	74	5	60362-526
				25	60362-600
 Split FocusLiner	6.3	4	72	5	60362-524



- Taper / Gooseneck
- FocusLiner
- Taper FocusLiner
- ConneCTite
- Straight
- Double Taper
- PTV/LVI

Bruker/Scion (Varian) GC Supplies - Instrument Quick Pick Guide

Inlet Liners Continued

Description and Geometry	OD (mm)	ID (mm)	Length (mm)	Pack Size	Cat No.
For 1078/1079 Injector					
 Sintered Glass, Large Volume Injection (LVI) Liner	5	1.8/3.4	54	5	60362-674
				25	10799-752
 Straight-through Liner	5	0.5	54	5	14226-456
 SPME liner	5	0.75	54	5	14226-476
 Splitless with Single Taper	5	2	54	5	60362-692
 Split / Splitless with Single Taper	5	3.4	54	5	60362-690
				25	10799-850
 Split / Splitless FocusLiner	5	3.4	54	5	60362-536
 Split / Splitless Taper FocusLiner	5	3.4	54	5	60362-642
For 1093/1094 Injector					
 ConnectTite SPI Liner, (Restriction = 0.25 mm)	4.6	0.5	54	5	60362-528
 ConnectTite SPI Liner, (Restriction = 0.5 mm) for 0.53 mm ID On-column	4.6	0.8	54	5	60362-532
 ConnectTite™ SPI Liner, (Restriction = 0.25 mm)	4.6	0.8	54	5	60362-530



- Taper / Gooseneck
- FocusLiner
- Taper FocusLiner
- ConnectTite
- Straight
- Double Taper
- PTV/LVI

O-rings and Sealing Rings

Description	Usage	Pack Size	Cat No.
Viton O-ring for 1177 Injector	Temperatures up to 300 °C.	10	60361-576
Graphite Sealing Ring for 1075 & 1077 Injectors	Temperatures up to 450 °C.	10	60362-686
Graphite Sealing Ring for 1078 & 1079 Injectors	Temperatures up to 450 °C.	10	60361-564

SilTite® FingerTite Ferrules

Description	Column ID	Ferrule ID	Pack Size	Cat No.
SilTite FingerTite Bruker/Scion (Varian) Injector/GC-MS Kit	0.1-0.25 mm	0.4 mm	*	89232-176
SilTite FingerTite Bruker/Scion (Varian) Injector/FID Kit	0.1-0.25 mm	0.4 mm	*	89232-170
SilTite FingerTite Bruker/Scion (Varian) Injector/FID Kit	0.53 mm	0.7 mm	*	89232-172
SilTite FingerTite Bruker/Scion (Varian) Injector Kit	0.53 mm	0.7 mm	*	89232-174
Replacement Parts				
SilTite FingerTite Ferrule 0.4 mm	0.1-0.25 mm	0.4 mm	10	97051-958
SilTite FingerTite Ferrule 0.5 mm	0.32 mm	0.5 mm	10	97051-960
SilTite FingerTite Ferrule 0.7 mm	0.53 mm	0.7 mm	10	89232-196
SilTite FingerTite Ferrule Blanking	–	–	2	97051-962
SilTite FingerTite Female Nut	–	–	5	97051-964

* Each starter kit includes all the parts necessary to convert one GC system (one injector and one detector) to the SilTite FingerTite system. In addition there are five SilTite FingerTite nuts, ten SilTite FingerTite ferrules, and a ferrule install tool which allows you to seat the ferrule in the correct position on the capillary column.

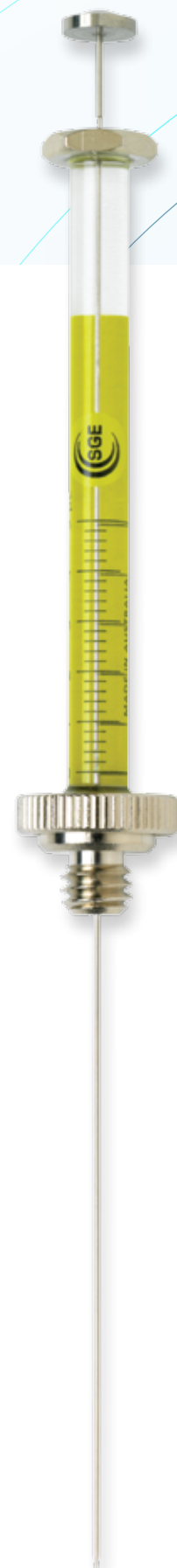


Ferrules

Instrument	Column ID	Ferrule ID	Pack Size	Cat No.
15% Graphite / 85% Vespel® Ferrules				
GC-MS & Detectors at atmospheric pressure e.g. FID	0.1-0.25 mm	0.4 mm	10	60361-600
	0.32 mm	0.5 mm	10	60361-578
	0.53 mm	0.8 mm	10	60361-586
Packed Columns	1/8" OD Packed Columns	1/8"	10	60361-604
	1/4" OD Packed Columns	1/4"	10	60361-602
100% Graphite Ferrules				
Injectors & Detectors at atmospheric pressure e.g. FID	0.1-0.32 mm	0.5 mm	10	60361-572
	0.45-0.53 mm	0.8 mm	10	60361-570
	1/8" OD Packed Columns	1/8"	10	60361-566
	1/4" OD Packed Columns	1/4"	10	60361-562
SilTite® Metal Ferrules				
GC-MS Interface Connections (Starter Kit)	0.1-0.25 mm	0.4 mm	10*	14226-402
	0.32 mm	0.5 mm	10*	14226-404
	0.53 mm	0.8 mm	10*	14226-406
Nuts for Varian Injector				
	–	–	2	60361-620
Replacement SilTite® Ferrules				
GC-MS Interface Connections	0.1-0.25 mm	0.4 mm	10	14226-376
	0.32 mm	0.5 mm	10	14226-378
	0.53 mm	0.8 mm	10	14226-380
	1/32"	0.81 mm	10	10799-820
Replacement SilTite® Nuts				
SilTite Metal Nuts	–	–	5	10799-742



*Includes ten ferrules, two SilTite nuts.



Autosampler Syringes

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

PerkinElmer AutoSystem

Volume	Needle Gauge (OD mm)	Syringe Code	Syringe Cat No.	Pack Size	Spare Needle Cat No.	Pack Size	Spare Plunger Cat No.	Pack Size
Fixed Needle								
5 µL	26 (0.47)	5F-PE-0.47C	60361-060	1	-	-	-	-
5 µL	23 (0.63)	5F-PE-0.63C	60361-062	1	-	-	-	-
5 µL Gas Tight	26 (0.47)	5F-PE-GT-0.47C	60361-064	1	-	-	60361-226	2
5 µL Gas Tight	23 (0.63)	5F-PE-GT-0.63C	60361-066	1	-	-	60361-226	2
50 µL	23 (0.63)	50F-PE-0.63C	60362-196	1	-	-	-	-
Removable Needle								
0.5 µL	26 (0.47)	0.5BR-PE-0.47C	60361-018	1	60361-366	1*	-	-
0.5 µL	23 (0.63)	0.5BR-PE-0.63C	60361-020	1	14225-622	1*	-	-

*Denotes spare Needle and Plunger kit.

Septa

Choose from a number of different septa types:

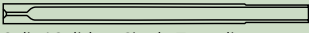


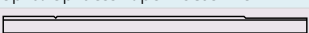
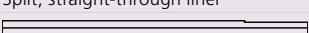
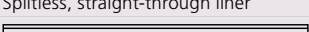
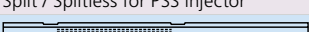

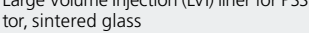
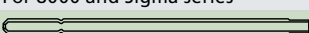

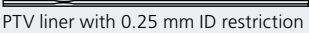
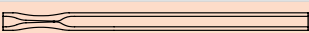


- GP = For non-demanding routine applications.
- EC = Combines significantly longer injection life, low bleed and low injection port adhesion.
- MN = Premium septa for autosamplers, up to 400 injections per septum.
- HT = Bleed and temperature optimized, combined with outstanding mechanical properties.



Type	Material	Durability	Resealing	Solvent Resistance	Tear Resistance	Maximum Temperature
GP	Silicone	Good	Good	Excellent	Good	200 °C
EC	High Temperature Silicone	Excellent	Excellent	Excellent	Excellent	400 °C
MN	High Temperature Silicone	Excellent	Excellent	Excellent	Excellent	400 °C
HT	BTO Silicone	Excellent	Excellent	Excellent	Excellent	400 °C

Diameter (mm)	Type	Pack Size	Cat No.
For PerkinElmer Sigma, 900, 990, 8000 Series, AutoSystem and Clarus			
11	GP	48	60361-506
11	EC	25	89205-416
11	MN	48	14225-856
11	HT	25	89205-430

Inlet Liners

Description and Geometry	OD (mm)	ID (mm)	Length (mm)	Pack Size	Cat No.
For AutoSystem & Clarus 500, 600					
 Split / Splitless Single Taper liner	6.2	4	92	1	10799-858
				5	10799-844
 Split / Splitless FocusLiner	6.2	4	92	5	60362-568
				25	10799-854
 Split / Splitless Taper FocusLiner	6.2	4	92	5	60362-652
				25	10001-538
 Split, straight-through liner	6.2	4	92	5	60362-574
				25	10799-860
 Splitless, straight-through liner	6.2	2	92	5	60362-576
 Split / Splitless for PSS injector	4	2	86.2	5	14226-466
 Split / Splitless FocusLiner for PSS injector	4	2	86.2	5	14226-468
 Large Volume Injection (LVI) liner for PSS injector, sintered glass	4	2	86.2	5	60362-618
 Packed Column liner	6	3	112	5	60362-614
For 8000 and Sigma series					
 Split / Splitless	5	3	100	5	60362-566
 Splitless with single taper	5	2	100	1	10799-856
PTV Liner					
 PTV liner with 0.25 mm ID restriction (recessed gooseneck)	2	1	88	5	60362-572
For AutoSystem Injectors					
 ConnecTite Liner Standard	6.2	4	92	5	89205-610
 ConnecTite Liner Top Hole	6.2	4	92	5	89205-614
 ConnecTite Liner Bottom Hole	6.2	4	92	5	89205-618



- Taper / Gooseneck
- FocusLiner
- Taper FocusLiner
- ConnecTite
- Straight
- Double Taper
- PTV/LVI

O-rings and Sealing Rings

Description	Usage	Pack Size	Cat No.
Viton O-ring	Temperatures up to 300 °C. For use with 6.2 mm OD liners.	10	14226-294
Graphite Vespel Sealing Ring for PSS system	Temperatures up to 325 °C. For use with 4 mm OD liners	10	10799-840

PerkinElmer

GC Supplies - Instrument Quick Pick Guide

SilTite® FingerTite Ferrules

Description	Column ID	Ferrule ID	Pack Size	Cat No.
SilTite FingerTite PerkinElmer Injector/GC-MS Starter Kit	0.1-0.25 mm	0.4 mm	*	89232-188
SilTite FingerTite PerkinElmer Injector/FID Starter Kit	0.1-0.25 mm	0.4 mm	*	89232-182
SilTite FingerTite PerkinElmer Injector/FID Starter Kit	0.53 mm	0.7 mm	*	89232-184
SilTite FingerTite PerkinElmer Injector Starter Kit	0.53 mm	0.7 mm	*	89232-186
Replacement Parts				
SilTite FingerTite Ferrule 0.4 mm	0.1-0.25 mm	0.4 mm	10	97051-958
SilTite FingerTite Ferrule 0.5 mm	0.32 mm	0.5 mm	10	97051-960
SilTite FingerTite Ferrule 0.7 mm	0.53 mm	0.7 mm	10	89232-196
SilTite FingerTite Ferrule Blanking	–	–	2	97051-962
SilTite FingerTite Female Nut	–	–	5	97051-964

* Each starter kit includes all the parts necessary to convert one GC system (one injector and one detector) to the SilTite FingerTite system. In addition there are five SilTite FingerTite nuts, ten SilTite FingerTite ferrules, and a ferrule install tool which allows you to seat the ferrule in the correct position on the capillary column.



Ferrules

Instrument	Column ID	Size of Nut	Ferrule ID	Pack Size	Cat No.
15% Graphite / 85% Vespel® Ferrules					
For Injectors & Detectors at atmospheric pressure e.g. FID	0.1-0.25 mm	1/16"	0.4 mm	10	60361-600
	0.1-0.25 mm	1/8"	0.4 mm	10	60361-608
	0.32 mm	1/16"	0.5 mm	10	60361-578
	0.32 mm	1/8"	0.5 mm	10	60361-606
	0.45-0.53 mm	1/16"	0.8 mm	10	60361-586
	0.45-0.53 mm	1/8"	0.8 mm	10	60361-610
	1/8" OD Packed Columns	1/8"	1/8"	10	60361-604
	1/4" OD Packed Columns	1/4"	1/4"	10	60361-602
100% Graphite Ferrules					
For Injectors & Detectors at atmospheric pressure e.g. FID (Not for GC-MS)	0.1-0.32 mm	1/16"	0.5 mm	10	60361-572
	0.1-0.32 mm	1/8"	0.5 mm	10	60361-568
	0.45-0.53 mm	1/16"	0.8 mm	10	60361-570
	0.45-0.53 mm	1/8"	0.8 mm	10	60631-574
	1/8" OD Packed Columns	1/8"	1/8"	10	60361-566
	1/4" OD Packed Columns	1/4"	1/4"	10	60361-562
SilTite® Metal Ferrules					
For GC-MS Interface Connection (Starter Kit)	0.1-0.25 mm	–	0.4 mm	10*	14226-368
	0.32 mm	–	0.5 mm	10*	14226-370
	0.53 mm	–	0.8 mm	10*	14226-372
Replacement SilTite® Ferrules					
For GC-MS Interface Connection	0.1-0.25 mm	–	0.4 mm	10	14226-376
	0.32 mm	–	0.5 mm	10	14226-378
	0.53 mm	–	0.8 mm	10	14226-380
	1/32"	–	0.81 mm	10	10799-820
Replacement SilTite® Nuts					
Replacement SilTite Nuts	–	–	5	–	14226-384

*Includes ten ferrules, two SilTite nuts.



Autosampler Syringes

All needles are 42 mm long with a cone tip style.

Shimadzu AOC14, AOC17 and AOC20

Volume	Needle Gauge (OD mm)	Syringe Code	Syringe Cat No.	Pack Size	Spare Needle Cat No.	Pack Size	Spare Plunger Cat No.	Pack Size
Fixed Needle								
5 µL	23 (0.63)	5F-S-0.63C	60362-186	1	–	–	–	–
Removable Needle								
0.5 µL	26 (0.47)	0.5BR-S-0.47C	60361-014	1	14225-618	1*	–	–
0.5 µL	23 (0.63)	0.5BR-S-0.63C	60362-622	1	14225-620	1*	–	–
10 µL	26 (0.47)	10R-S-0.47C	60361-132	1	60362-632	2	–	–
10 µL	23 (0.63)	10R-S-0.63C	60361-134	1	60361-316	2	–	–
10 µL Gas Tight	23 (0.63)	10R-S-GT-0.63C	60362-188	1	60361-316	2	60362-678	2

*Denotes spare Needle and Plunger kit.

Septa

Choose from a number of different septa types:








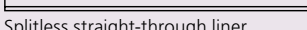

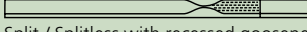
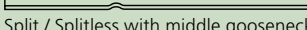




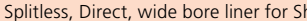

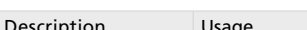


- Enduro Blue = For non-demanding routine applications.
- EC = Combines significantly longer injection life, low bleed and low injection port adhesion.
- HT = Bleed and temperature optimized, combined with outstanding mechanical properties.

Type	Material	Durability	Resealing	Solvent Resistance	Tear Resistance	Maximum Temperature
Enduro Blue	High Temperature Silicone	Excellent	Excellent	Excellent	Excellent	350 °C
EC	High Temperature Silicone	Excellent	Excellent	Excellent	Excellent	400 °C
HT	BTO Silicone	Excellent	Excellent	Excellent	Excellent	400 °C

Type	Pack Size	Cat No.
Shimadzu 9A, 14, 15A, 16, 17A, 2010 & 2014		
Enduro Blue	50	14217-534
EC	50	89205-424
HT	50	89205-438



Inlet Liners

Description and Geometry	OD (mm)	ID (mm)	Length (mm)	Pack Size	Cat No.
For GC-2010 (SPL-2010 Injector), GC-2014 (SPL-2014 Injector) and GC-17A (SPL-17 Injector)					
 Split / Splitless FocusLiner *	5	3.4	95	5	10799-832
 Split / Splitless Taper FocusLiner *	5	3.4	95	5	10799-830
 Split / Splitless FocusLiner	5	3.4	95	5	60362-548
 Split / Splitless Taper FocusLiner	5	3.4	95	5	60362-672
 ConnectTite Liner Standard	5	3.4	95	5	89205-586
 ConnectTite Liner Top Hole	5	3.4	95	5	89205-590
 ConnectTite Liner Bottom Hole	5	3.4	95	5	89205-594
 Split, straight-through liner	5	3.4	95	5	14226-460
 Splitless straight-through liner	5	2.6	95	5	60362-562
 Split / Splitless with Single Taper	5	3.4	95	5	10799-834
 Split / Splitless with middle gooseneck	5	3.4	95	5	10799-836
 Split / Splitless with recessed gooseneck and quartz wool	5	3.4	95	5	14226-458
 Split / Splitless with middle gooseneck	5	3.4	95	5	60362-558
 ConnectTite™ (0.53 mm ID columns)	5	2.6	95	5	60362-564
 SPME Liner	5	0.75	95	5	14226-464
For GC-14(SPL-14 Injector)					
 Split / Splitless FocusLiner	5	3.4	99	5	60362-648
 Split / Splitless Taper FocusLiner	5	3.4	99	5	60362-650
 Split / Splitless with 2.0 mm middle gooseneck	5	3.4	99	5	60362-550
 Split / Splitless with single taper	5	3.4	99	5	60362-554
 Splitless, Direct, wide bore liner for Shimadzu 9A/16A GC	5	3.4	139	5	60362-702



- Taper / Gooseneck
- FocusLiner
- Taper FocusLiner
- ConnectTite
- Straight
- Double Taper
- PTV/LVI

* When using a standard 42 mm needle for autosamplers, the sample will be injected on top of the wool for this liner.

O-rings and Sealing Rings

Description	Usage	Pack Size	Cat No.
Viton O-ring	Temperatures up to 300 °C. For 2010 & 2014 (SPL-2010 Injector & SPL-2014 Injector).	10	10799-842
Graphite Sealing Ring	Temperatures up to 450 °C. For 14, 15A & 16 (SPL-14 injector).	10	60361-538
Graphite Sealing Ring	Temperatures up to 450 °C. For 17A (SPL-17 injector).	10	14233-666

SilTite® FingerTite Ferrules

Description	Column ID	Ferrule ID	Pack Size	Cat No.
SilTite FingerTite Shimadzu 2010 INJ / FID Starter Kit	0.1-0.25 mm	0.4 mm	*	97051-950
SilTite FingerTite Shimadzu 2010 INJ / MS Starter Kit	0.1-0.25 mm	0.4 mm	*	97051-952
SilTite FingerTite Shimadzu 2010 INJ / FID Starter Kit	0.53 mm	0.7 mm	*	89232-178
SilTite FingerTite Shimadzu 2010 Injector Starter Kit	0.53 mm	0.7 mm	*	89232-180
SilTite FingerTite Shimadzu 17A INJ / FID Starter Kit	0.53 mm	0.7 mm	*	89232-192
SilTite FingerTite Shimadzu 17A Injector Starter Kit	0.53 mm	0.7 mm	*	89232-194
Replacement Parts				
SilTite FingerTite Ferrule 0.4 mm	0.1-0.25 mm	0.4 mm	10	97051-958
SilTite FingerTite Ferrule 0.5 mm	0.32 mm	0.5 mm	10	97051-960
SilTite FingerTite Ferrule 0.7 mm	0.53 mm	0.7 mm	10	89232-196
SilTite FingerTite Ferrule Blanking	–	–	2	97051-962
SilTite FingerTite Female Nut	–	–	5	97051-964

* Each starter kit includes all the parts necessary to convert one GC system (one injector and one detector) to the SilTite FingerTite system. In addition there are five SilTite FingerTite nuts, ten SilTite FingerTite ferrules, and a ferrule install tool which allows you to seat the ferrule in the correct position on the capillary column.



Ferrules

Column ID	Description	Pack Size	Cat No.
GC14A, GC17A, GC2010 and GC2014 Detector / Injectors (Not for MS interfaces or QP2010 Injector)			
0.10-0.32 mm ID columns	100% Graphite	10	60361-550
0.45-0.53 mm ID columns	100% Graphite	10	60361-552
5 mm OD packed columns	100% Graphite	10	60361-538
0.10-0.25 mm ID columns	SilTite Metal - Initial Installation	10*	14226-408
0.10-0.25 mm ID columns	SilTite Ferrules	10	14233-536
0.32 mm ID columns	SilTite Metal - Initial Installation	10*	14226-410
0.32 mm ID columns	SilTite Ferrules	10	10799-738
0.45-0.53 mm ID columns	SilTite Metal - Initial Installation	10*	14226-412
0.53 mm ID columns	SilTite Ferrules	10	10799-824
n/a	SilTite Metal Nuts - Slotted	5	10799-740
QP5000/5050 Standard MS Interface			
QP5000-I 0.10-0.25 mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	60362-668
QP5000-I 0.32 mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	60362-670
QP5000-II & QP5050 0.10-0.25 mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	60361-594
QP5000-II & QP5050 0.32 mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	60361-596
0.10-0.25 mm ID columns	SilTite Metal - Initial Installation	10*	14233-668
0.10-0.25 mm ID columns	SilTite Ferrules	10	14233-536
0.32 mm ID columns	SilTite Metal - Initial Installation	10*	10799-738
0.32 mm ID columns	SilTite Ferrules	10	10799-822
0.53 mm ID columns	SilTite Ferrules	10	10799-824
n/a	SilTite Metal Nuts - QP5000/5050 Standard MS interface	5	10799-740
QP5000/5050 Wide Bore MS Interface, QP2010 Injector and QP2010 Standard MS Interface			
0.10-0.25 mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	60361-600
0.32 mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	60361-578
0.45-0.53 mm ID columns	15% Graphite/ 85% Vespel® Ferrules	10	60361-586
0.10-0.25 mm ID columns	SilTite Metal - Initial Installation	10*	14226-368
0.10-0.25 mm ID columns	SilTite Ferrules	10	14226-376
0.32 mm ID columns	SilTite Metal - Initial Installation	10*	14226-370
0.32 mm ID columns	SilTite Ferrules	10	14226-378
0.45-0.53 mm ID columns	SilTite Metal - Initial Installation	10*	14226-372
0.45-0.53 mm ID columns	SilTite Ferrules	10	14226-380
n/a	SilTite Metal Nuts	5	14226-384
Replacement SilTite® Nuts			
2010 GC-MS System		5	14226-384
2010 GC-MS System with QP5000 series MS		5	14226-384
2010/2014 GC Injectors and atmospheric detectors		5	14226-384
QP5000 Jet Separator MS Interface		5	14226-384
QP5000 Direct MS Interface		5	10799-740
All Injectors Jet Separator (Starter Kit), except 2010/2014		5	10799-736



* Includes ten ferrules, two SilTite nuts.



Autosampler Syringes

Thermo Scientific / CE Instruments / Fisons

All needles have a cone tip style.

Autosampler				Syringe Specifications				Syringe Code	Plunger Stop	Syringe Cat No.	Needle Cat No.	Pack Size
TriPlus	AS3000	AS2000	AS200/800	Volume	Length (mm)	Gauge (OD mm)						
Fixed Needle												
•				10 µL	50	23 (0.63)	10F-C/T-GT-5/0.63C	✓	60361-144	–	–	
•		•		10 µL	50	23 (0.63)	10F-BT-GT-5/0.63C		89404-532	–	–	
•		•		10 µL	80	23 (0.63)	10F-BT-8/0.63C		30621-124	–	–	
•				10 µL	80	26 (0.47)	10F-C/T-8/0.47C	✓	60361-364	–	–	
•		•		10 µL	80	26 (0.47)	10F-BT-8/0.47C		30621-126	–	–	
•				10 µL	50	23 (0.63)	10F-C/T-5/0.63C	✓	60361-142	–	–	
•	•	•	•	10 µL	50	23 (0.63)	10F-VA8400/BT-5/0.63C		89404-526	–	–	
•				10 µL	50	26 (0.47)	10F-C/T-5/0.47C	✓	60361-140	–	–	
•	•	•	•	10 µL	50	26 (0.47)	10F-BT-5/0.47C		89404-524	–	–	
Removable Needle												
•				10 µL	50	26 (0.47)	10R-C/T-5/0.47C	✓	60361-380	14225-696	2	
•	•	•		10 µL	50	26 (0.47)	10R-BT-GT-0.47C		30621-122	14225-696	2	
•				10 µL	50	23 (0.63)	10R-C/T-5/0.63C	✓	60361-382	60361-374	2	
•	•	•	•	10 µL	50	23 (0.63)	10R-BT-0.63C		10799-780	60361-374	2	
•				10 µL	80	26 (0.47)	10R-C/T-8/0.47C	✓	60362-192	60362-216	3	
•		•	•	10 µL	80	26 (0.47)	10R-BT-8/0.47C		10799-782	60362-216	3	

Septa

Choose from a number of different septa types:



- GP = For non-demanding routine applications.
- EC = Combines significantly longer injection life, low bleed and low injection port adhesion.
- MN = Premium septa for autosamplers, up to 400 injections per septum.
- HT = Bleed and temperature optimized, combined with outstanding mechanical properties.

Type	Material	Durability	Resealing	Solvent Resistance	Tear Resistance	Maximum Temperature
GP	Silicone	Good	Good	Excellent	Good	200 °C
EC	High Temperature Silicone	Excellent	Excellent	Excellent	Excellent	400 °C
MN	High Temperature Silicone	Excellent	Excellent	Excellent	Excellent	400 °C
HT	BTO Silicone	Excellent	Excellent	Excellent	Excellent	400 °C

Diameter (mm)	Type	Pack Size	Cat No.
For TRACE 1300			
11	GP	48	60361-506
11	EC	25	89205-416
11	MN	48	14225-856
11	HT	25	89205-430
For TRACE 1300 and Focus			
17*	EC	24	89205-422
17*	MN	24	10799-758
17*	HT	24	89205-436



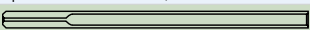


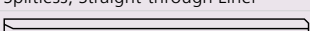

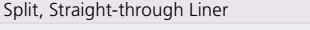
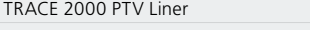
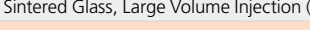


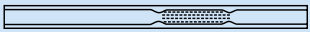

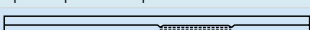
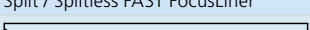
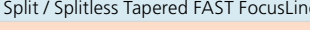
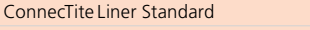

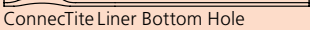
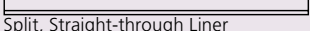
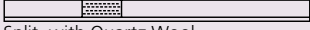


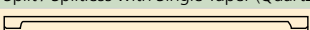
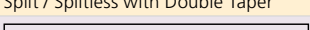
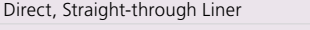
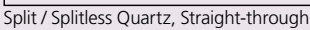
* Maximum temperature for the Thermo septa diameter 17 mm is 330 °C.

Inlet Liners

Description and Geometry	OD (mm)	ID (mm)	Length (mm)	Pack Size	Cat No.
For TRACE and Focus					
 Splitless FocusLiner (for use with 70 mm Needle)	8	5	105	5	60362-644
 Splitless FocusLiner with Top-end Restriction (for use with 70 mm Needle)	8	5	105	5	60362-646
				25	10799-852



Inlet Liners Continued

Description and Geometry	OD (mm)	ID (mm)	Length (mm)	Pack Size	Cat No.
 Split FocusLiner (for use with 50 mm Needle)	8	5	105	5	14233-678
 Splitless FocusLiner (for use with 50 mm Needle)	8	5	105	5	10799-828
 Splitless with Single Taper	8	3	105	5	60362-578
 Splitless with Single Taper	8	5	105	5	60362-580
 Splitless, Straight-through Liner	8	3	105	5	60362-582
 SPME Liner	8	0.8	105	5	14226-480
 Split, Straight-through Liner	8	5	105	5	60362-584
 TRACE 2000 PTV Liner	2.75	1.75	120	5	14226-478
 Sintered Glass, Large Volume Injection (LVI) Liner	2.75	0.78/1.8	120	5	10799-838
 ConneCTite Liner Standard	8	5	105	5	89205-598
 ConneCTite Liner Top Hole	8	5	105	5	89205-436
 ConneCTite Liner Bottom Hole	8	5	105	5	89205-606
For TRACE 1300					
 Split / Splitless FocusLiner	6.3	4	78.5	5	60362-506
				25	60362-590
 Split / Splitless Taper FocusLiner	6.3	4	78.5	5	60362-664
				25	14226-448
 Split / Splitless FAST FocusLiner	6.3	2.3	78.5	5	14226-444
				25	14226-446
 Split / Splitless Tapered FAST FocusLiner	6.3	2.3	78.5	5	14226-470
				25	14226-474
 ConneCTite Liner Standard	6.3	4	78.5	5	89205-574
 ConneCTite Liner Top Hole	6.3	4	78.5	5	89205-578
 ConneCTite Liner Bottom Hole	6.3	4	78.5	5	89205-582
 Split, Straight-through Liner	6.3	4	78.5	5	60362-510
				25	60362-594
 Split, with Quartz Wool	6.3	4	78.5	5	60362-504
				25	60362-592
 Split / Splitless with Single Taper	6.3	4	78.5	5	60362-516
				25	60362-602
 Split / Splitless with Single Taper (Quartz Wool)	6.3	4	78.5	5	60362-520
				25	87003-016
 Split / Splitless with Double Taper	6.3	4	78.5	5	60362-518
				25	60362-604
 Direct, Straight-through Liner	6.3	1.2	78.5	5	60362-514
				25	60362-596
 Split / Splitless Quartz, Straight-through Liner	6.1	2	78.5	5	60362-508
 Splitless with Recessed Gooseneck	6.3	2	78.5	5	14226-450
 Split / Splitless Recessed Gooseneck (Quartz Wool)	6.3	4	78.5	5	60362-512
				25	14226-482



-  Taper / Gooseneck
-  FocusLiner
-  Taper FocusLiner
-  ConneCTite
-  Straight
-  Double Taper
-  PTV/LVI

Thermo Scientific

GC Supplies - Instrument Quick Pick Guide

O-rings and Sealing Rings

Description	Usage	Pack Size	Cat No.
For 8000 & TRACE GCs			
Graphite Sealing Ring	8 mm ID. Temperatures up to 450 °C. Suitable for use with liners 092004 and 09200401.	10	60361-542
For TRACE 1300			
Viton O-Ring	Temperatures up to 300 °C. Suitable for liners with OD of 6.3 mm.	10	60361-576
Graphite Sealing Ring	Temperatures up to 450 °C. Suitable for all inlet liners above except 092004 and 09200401.	10	60362-682
Graphite Sealing Ring	Temperatures up to 450 °C. Suitable for use with liners 092004 and 09200401.	10	60362-684

SilTite® FingerTite Ferrules

Description	Column ID	Ferrule ID	Pack Size	Cat No.
SilTite FingerTite Thermo Injector/FID Starter Kit	0.1-0.25 mm	0.4 mm	*	89232-160
SilTite FingerTite Thermo Injector/GC-MS ISQ Starter Kit	0.1-0.25 mm	0.4 mm	*	89232-166
SilTite FingerTite Thermo Injector/GC-MS Starter Kit	0.1-0.25 mm	0.4 mm	*	89232-168
SilTite FingerTite Thermo Injector/FID Starter Kit	0.53 mm	0.7 mm	*	89232-162
SilTite FingerTite Thermo Injector Starter Kit	0.53 mm	0.7 mm	*	89232-164
For TRACE 1300				
SilTite FingerTite INJ / FID Starter Kit	0.1-0.25 mm	0.4 mm	*	97051-946
SilTite FingerTite Capillary / FID Starter Kit	0.1-0.25 mm	0.4 mm	*	89232-154
SilTite FingerTite INJ / MS Starter Kit	0.1-0.25 mm	0.4 mm	*	97051-948
Replacement Parts				
SilTite FingerTite Ferrule 0.4 mm	0.1-0.25 mm	0.4 mm	10	97051-958
SilTite FingerTite Ferrule 0.5 mm	0.32 mm	0.5 mm	10	97051-960
SilTite FingerTite Ferrule 0.7 mm	0.53 mm	0.7 mm	10	89232-196
SilTite FingerTite Ferrule Blanking	–	–	2	97051-962
SilTite FingerTite Female Nut	–	–	5	97051-964
SilTite FingerTite INJ Base Seal	0.1-0.25 mm	–	2	97051-966
SilTite FingerTite MS Adaptor	–	–	1	89232-142
SilTite FingerTite Injector	0.1-0.25 mm	–	1	89232-146

* Each starter kit includes all the parts necessary to convert one GC system (one injector and one detector) to the SilTite FingerTite system. In addition there are five SilTite FingerTite nuts, ten SilTite FingerTite ferrules, and a ferrule install tool which allows you to seat the ferrule in the correct position on the capillary column.



Ferrules

Description	Column ID	Ferrule ID	Pack Size	Cat No.
SilTite® Metal Ferrules				
For GC-MS Interface Connections (Starter Kit)	0.1-0.25 mm	0.4 mm	10*	14226-424
	0.32 mm	0.5 mm	10*	14226-426
	0.53 mm	0.8 mm	10*	14226-428
For TRACE 1300 Split / Splitless Injectors (Starter Kit)	0.1-0.25 mm	0.4 mm	10#	14226-396
	0.32 mm	0.5 mm	10#	14226-398
	0.45-0.53 mm	0.8 mm	10#	14226-400
	1/32"	0.81 mm	10#	10799-744

Ferrules Continued

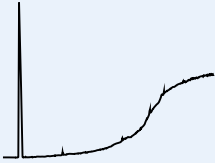
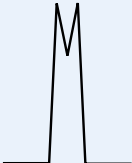
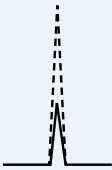
Description	Column ID	Ferrule ID	Pack Size	Cat No.
15% Graphite / 85% Vespel® Ferrules				
For All Injectors & Detectors (Not for 8000 Series, Focus, TRACE/ Ultra GC)	0.1-0.25 mm	0.4 mm	10	60361-584
	0.32 mm	0.5 mm	10	60361-590
	0.53 mm	0.8 mm	10	60361-582
	1/8" OD Packed Columns	1/8"	10	60361-604
	1/4" OD Packed Columns	1/4"	10	60361-602
For All Focus, Trace/Ultra Injectors & Detectors at atmospheric pressure e.g. FID (Not for GC-MS)	0.1-0.25 mm	0.4 mm	10#	14226-352
	0.32 mm	0.5 mm	10#	14226-354
	0.53 mm	0.8 mm	10#	14226-356
Brass Nut for Focus, Trace/ Ultra GC Injectors & Non-MS Detectors			2	14226-536
For TRACE 1300 Injectors & Detectors at atmospheric pressure e.g. FID	0.1-0.25 mm	0.4 mm	10	60361-614
	0.32 mm	0.5 mm	10	60361-616
	0.53 mm	0.8 mm	10	60361-618
	for 1/8" OD Packed Columns	1/8"	10	60361-604
	for 1/4" OD Packed Columns	1/4"	10	60361-602
For TRACE 1300 GC-MS Interface Connection	0.1-0.25 mm	0.4 mm	10	60361-600
	0.32 mm	0.5 mm	10	60361-578
	0.53 mm	0.8 mm	10	60361-586
100% Graphite Ferrules				
For Injectors & Detectors at atmospheric pressure e.g. FID (Not for GC-MS)	0.1-0.32 mm	0.5 mm	10	60361-560
	0.45-0.53 mm	0.8 mm	10	60361-556
	1/8" OD Packed Columns	1/8"	10	60361-566
	1/4" OD Packed Columns	1/4"	10	60361-562
For TRACE 1300 Injectors & Detectors at atmospheric pressure e.g. FID (Not for GC-MS)	0.1-0.32 mm	0.5 mm	10	60362-634
	0.45-0.53 mm	0.8 mm	10	60362-636
	for 1/8" OD Packed Columns	1/8"	10	60361-546
	for 1/4" OD Packed Columns	1/4"	10	60362-686
Replacement SilTite® Metal Ferrules				
For All GC-MS Interface Connections	0.1-0.25 mm	0.4 mm	10	10799-812
	0.32 mm	0.5 mm	10	10799-814
	0.53 mm	0.8 mm	10	10799-816
	1/32"	0.81 mm	10	10799-818
For TRACE 1300 Connections	0.1-0.25 mm	0.4 mm	10	14226-376
	0.32 mm	0.5 mm	10	14226-378
	0.53 mm	0.8 mm	10	14226-380
	1/32"	0.81 mm	10	10799-744
Replacement SilTite® Nuts				
SilTite Metal Nuts	–	–	5	10799-810
For TRACE 1300 GC-MS Interface Connection	–	–	5	14226-384
For TRACE 1300 Split / Splitless Injector	–	–	5	14226-388
Replacement SilTite® Base Seals				
For TRACE 1300 Split / Splitless Injector	–	–	2	14226-420
	–	–	10	14226-422





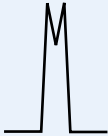
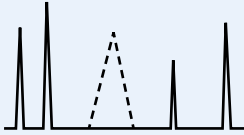
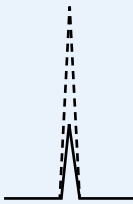
* Includes 10 ferrules, 2 SilTite nuts. # To be used in combination with brass nut (Cat No. 1034085)

Expert Tips

GC Supplies - Instrument Quick Pick Guide

Problem	Resolution
No Column Flow	Check carrier gas flow and adjust. Replace septum/injector seal with EC septum. Visually check column integrity i.e. is it broken? Remove section if small enough or replace column.
High Column Bleed 	Check published maximum temperature. Check carrier flow rates / velocity, correct for column/length – adjust if necessary. Check column has not moved in detector. Check for leaks produced during initial heating. Check oxygen filter is not spent – replace if necessary. Make sure detector temperature is higher than final column temperature if possible. Check cleanliness of detector – clean if necessary. Recondition column – re-run conditioning program. Cut 50 cm from the front end of the column.
Retention Time Shifts	Check temperature program. Check injector temperature. Ensure manual injection technique is consistent. Check carrier gas flow rate / velocity. Check for injector leaks. Ensure same solvent being used. Column is contaminated - rinse or replace. Remove 50 cm from front of column. Phase breakdown – replace column.
Poor Resolution or Loss of Resolution 	Use correct column or phase. Use different temperature program. Check injector temperature – is it correct for solvent and analytes. Check injection technique. Check carrier flow / velocity. Sample overload - dilute or change split ratio. Contaminated column – rinse or replace. Phase breakdown – replace column.
Phase Breakdown	Check for leaks and repair. Check oxygen traps and replace if necessary. Exceeded upper temperature limit of column for extended periods – replace column. Column contamination – replace column (perform extra clean up of samples). Damage due to sample – do not inject strong acid or base samples.
Poor or No Detector Response For All Peaks 	Correct injection technique for concentration of analyte. Check proper liner is used for injection technique. Check syringe needle not blocked or plunger is not leaking. Check split ratio if using split technique. Check injector temperature is correct. Check detector temperature is correct. Check flow rates of detector gas(es). Error in sample concentration – verify concentrations.
Detector Problems	PID - Dirty window – clean according to manufacturer's specifications. ELCD - Faulty reactor tube. - Contaminated alcohol. - Incorrect alcohol flow rate. ECD - Impurities in nitrogen. - Dirty detector; clean (bake) according to manufacturer's specifications. NPD - Bad bead. FID - Partially blocked jet. FPD - Incorrect gas flow rates. - Incorrect filter installed. - Clean filter. TCD - Balance flow rates.

Poor Peak Shape

Problem	Reason	Resolution
Peak Fronting 	Column overload.	Reduce sample concentration or injection volume.
	Incorrect polarity of column for compound.	Use correct column.
Peak Tailing 	Column is active.	Remove first meter of column; recheck; replace column if necessary.
	Active inlet liner.	Replace liner with clean, deactivated liner.
	Incorrect column for analysis.	Use correct column.
	Incorrect column installation.	Check inlet and outlet connections, and for any cold spots.
Split Peaks 	Poor injection technique.	Refine injection technique.
	Mixed solvents.	Use only single solvent system.
	Poor resolution.	Use different column or change temperature profile.
Ghost Peaks 	Run GC without injection; if ghost peaks disappear then the problem is probably the syringe or solvent; if ghost peaks are still evident then the problem is either the septum or the breakdown of the phase.	
	Contaminated syringe or solvents.	Clean syringe thoroughly and replace solvents.
	Septum bleed.	Replace with new EC septum.
	Breakdown of column phase.	Choose different phase which restricts breakdown.
	Too large an injection volume.	Decrease injection volume.
Specific Peaks Low Response 	Column is active.	Remove first meter of column; recheck; replace column if necessary.
	Active inlet liner.	Replace liner with clean, deactivated liner.
	Incorrect calculation of sample.	Verify calculations.
	FID altered gas flows.	Readjust gas flows.

GC Supplies - Instrument Quick Pick Guide

Choose for Your Instrument

SGE Analytical Science (SGE) is a world renowned brand for components and consumables used in scientific analysis.

Primarily in the field of scientific glass engineering for liquid handling and separation science, since its beginnings in 1960, SGE has become the global market leader in niche areas such as autosampler syringes and GC inlet liners.

Completing the transition into Trajan after acquisition in 2013, SGE products make up a solid foundation of Trajan's portfolio and will continue to be created and supported by Trajan customer service and distribution networks worldwide.

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