



RESTEK

RESTEK

GC ACCESSORIES QUARTERLY

# Spotlight

2011.2



Bright Ideas  
for Improving  
Your Data!

**RESTEK**

**Chromatography Products**

[www.restek.com](http://www.restek.com)

## True Blue Performance

- Increase accuracy and reproducibility with state-of-the-art deactivation.
- Achieve lower detection limits for a wide range of active compounds.
- Use wool with confidence—new quartz wool is deactivated after packing, preventing the loss of sensitive analytes.

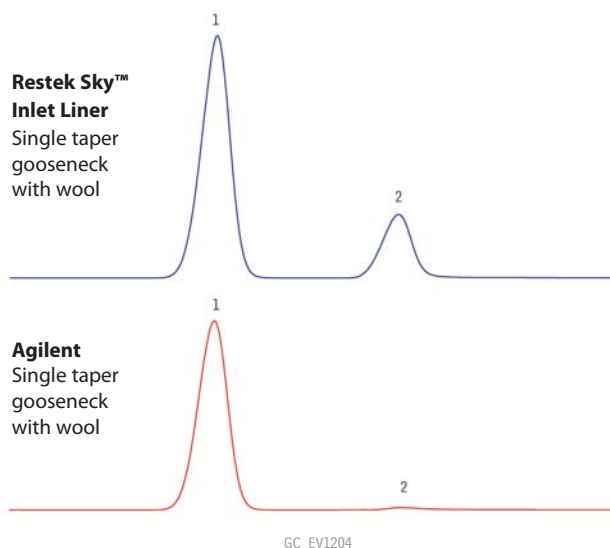
The innovative deactivation used for Sky™ liners results in exceptional inertness for a wide range of analyte chemistries. By reducing active sites and enhancing analyte transfer to the column, these liners increase accuracy and precision, allowing lower detection limits for many active compounds. In addition to improved data quality, you'll benefit from fewer liner changes and less downtime for maintenance.



### Greater Inertness Results in Higher Analyte Response

A common probe used to illustrate inertness is 2,4-dinitrophenol (2,4-DNP), which functions as an indicator of acid compound interactions. It is used to monitor system suitability in semivolatiles methods, which benefit from the use of wool to assist in sample vaporization. As shown in Figure 1, the response of 2,4-DNP with the Sky™ inlet liner, even at low concentrations, is superior to a competitor's liner. The Agilent liner with wool has active sites that adsorb 2,4-DNP and reduce its response. In contrast an excellent response is achieved using the Sky™ liner, even in the presence of wool.

**Figure 2** The state-of-the-art deactivation used for Sky™ liners with wool results in higher responses for active acid compounds, such as 2,4-DNP.



**Increase the response of  
active analytes with inert  
Sky™ inlet liners!**






	2,4-DNP Response Factor
<b>Restek</b>	<b>0.28</b>
<b>Agilent</b>	0.02

**Peaks**  
1. Acenaphthene (IS)  
2. 2,4-DNP




**Column** Rxi®-5Sil MS, 15 m, 0.25 mm ID, 0.25 μm (cat.# 13620);  
**Sample** 10 μg/mL each 2,4-dinitrophenol and acenaphthene standard in methylene chloride; **Injection** Inj. Vol.: 1 μL splitless (hold 1 min.);  
**Liner:** Comparison of Sky™ Single Taper Gooseneck Inlet Liner with Wool (cat.# 23303.5) and Agilent Single Taper Gooseneck Inlet Liner with Wool (cat.# 5062-3587); Inj. Temp.: 250 °C.


visit [www.restek.com/sky](http://www.restek.com/sky) for more information.




## Sky™ Inlet Liners for Agilent GCs

Splitless Liners for Agilent GCs	ID OD x Length	Similar to Agilent part #	ea.	cat.# 5-pk.	25-pk.
 Sky 2mm Splitless	2.0mm 6.5mm x 78.5mm	5181-8818 (ea.) 5183-4703 (5-pk.) 5183-4704 (25-pk.)	23313.1	23313.5	23313.25
 Sky 2mm Splitless w/Wool	2.0mm 6.5mm x 78.5mm		23314.1	23314.5	23314.25
 Sky 2mm Single Taper Gooseneck	2.0mm 6.5mm x 78.5mm		23315.1	23315.5	23315.25
 Sky 2mm Single Taper Gooseneck w/Wool	2.0mm 6.5mm x 78.5mm		23316.1	23316.5	23316.25
 Sky 4mm Straight	4.0mm 6.3mm x 78.5mm	210-3003 (ea.) 210-3003-05 (5-pk.)	23301.1	23301.5	23301.25
 Sky 4mm Straight w/Wool	4.0mm 6.3mm x 78.5mm	19251-60540 (ea.) 5183-4691 (5-pk.) 5183-4692 (25-pk.)	23300.1	23300.5	23300.25
 Sky 4mm Single Taper Gooseneck	4.0mm 6.5mm x 78.5mm	5181-3316 (ea.) 5183-4695 (5-pk.) 5183-4696 (25-pk.)	23302.1	23302.5	23302.25
 Sky 4mm Single Taper Gooseneck w/Wool	4.0mm 6.5mm x 78.5mm	5062-3587 (ea.) 5183-4693 (5-pk.) 5183-4694 (25-pk.)	23303.1	23303.5	23303.25
 Sky 4mm Double Taper Gooseneck	4.0mm 6.5mm x 78.5mm	5181-3315 (ea.) 5183-4705 (5-pk.) 5183-4706 (25-pk.)	23308.1	23308.5	23308.25
 Sky 4mm Cyclo Double Taper Gooseneck	4.0mm 6.5mm x 78.5mm		23310.1	23310.5	23310.25


COLUMN INSTALLS THIS END

Split Liners for Agilent GCs	ID OD x Length	Similar to Agilent part #	ea.	cat.# 5-pk.	25-pk.
 Sky 4mm Straight w/Wool	4.0mm 6.3mm x 78.5mm	19251-60540 (ea.) 5183-4691 (5-pk.) 5183-4692 (25-pk.)	23304.1	23304.5	23304.25
 Sky 4mm Precision Liner w/Wool	4.0mm 6.3mm x 78.5mm	210-4004-5 (5-pk.)	23305.1	23305.5	23305.25
 Sky 4mm Cyclo splitter	4.0mm 6.3mm x 78.5mm		23312.1	23312.5	23312.25


Split/Splitless Liners for Agilent GCs	ID OD x Length	Similar to Agilent part #	ea.	cat.# 5-pk.	25-pk.
 Sky Low Pressure Drop Precision Liner w/Wool	4.0mm 6.3mm x 78.5mm		23309.1	23309.5	

Direct Inject Liners for Agilent GCs (for 0.25/0.32/0.53mm ID Columns)	ID OD x Length	Similar to Agilent part #	ea.	cat.# 5-pk.	25-pk.
 Sky Drilled Uniliner (hole near bottom)	4.0mm 6.3mm x 78.5mm	G1544-80730 (ea.)	23306.1	23306.5	
 Sky Drilled Uniliner (hole near bottom) w/Wool	4.0mm 6.3mm x 78.5mm		23307.1	23307.5	
 Sky Drilled Uniliner (hole near top)	4.0mm 6.3mm x 78.5mm		23311.1	23311.5	23311.25

## Sky™ Inlet Liners for PerkinElmer GCs

PSS Liners for PerkinElmer GCs	ID OD x Length	Similar to PE part #	ea.	cat.# 5-pk.	25-pk.
 Sky Auto SYS XL PSS Split/Splitless w/Wool	2.0mm 4.0mm x 86.2mm	N6121004	23317.1	23317.5	23317.25



## Sky™ Inlet Liners for Shimadzu GCs

Split Liners for Shimadzu 17A, 2010, and 2014 GCs	ID OD x Length	Similar to Shimadzu part #	ea.	cat.# 5-pk.	25-pk.
 Sky 3.5mm Split	3.5mm 5.0mm x 95mm	221-41444-01	23318.1	23318.5	23318.25
 Sky 3.5mm Split w/Wool	3.5mm 5.0mm x 95mm		23319.1	23319.5	23319.25
 Sky 3.5mm Precision Liner w/Wool	3.5mm 5.0mm x 95mm		23320.1	23320.5	
Splitless Liners for Shimadzu 17A, 2010, and 2014 GCs	ID OD x Length	Similar to Shimadzu part #	ea.	cat.# 5-pk.	25-pk.
 Sky 3.5mm Single Taper Gooseneck	3.5mm 5.0mm x 95mm	221-48335-01	23321.1	23321.5	23321.25
 Sky 3.5mm Single Taper Gooseneck w/Wool	3.5mm 5.0mm x 95mm		23322.1	23322.5	

## Sky™ Inlet Liners for Thermo Scientific GCs

Split Liners for Thermo TRACE, 8000, 8000 TOP, & Focus SSL	ID OD x Length	Similar to TS part #	ea.	cat.# 5-pk.	25-pk.
 Sky 5mm Straight	5.0mm 8.0mm x 105mm	453 20030	23323.1	23323.5	23323.25
 Sky 5mm Straight w/Wool	5.0mm 8.0mm x 105mm		23324.1	23324.5	23324.25
 Sky 5mm Precision Liner w/Wool	5.0mm 8.0mm x 105mm		23327.1	23327.5	
Splitless Liners for Thermo TRACE, 8000, 8000 TOP, & Focus SSL	ID OD x Length	Similar to TS part #	ea.	cat.# 5-pk.	25-pk.
 Sky 5mm Splitless	5.0mm 8.0mm x 105mm	453 20033	23325.1	23325.5	23325.25
 Sky 5mm Splitless w/Wool	5.0mm 8.0mm x 105mm		23326.1	23326.5	23326.25

## Sky™ Inlet Liners for Varian GCs

Liners for Varian 1177 S/SL Injection Ports	ID OD x Length	Similar to Varian part #	ea.	cat.# 5-pk.	25-pk.
 Sky 4mm Split Liner w/Glass Frit	4.0mm 6.3mm x 78.5mm		23330.1	23330.5	
 Sky 4mm Precision Liner w/Wool	4.0mm 6.3mm x 78.5mm		23328.1	23328.5	
 Sky 4mm Single Taper Gooseneck	4.0mm 6.5mm x 78.5mm	392611927	23331.1	23331.5	
 Sky 4mm Single Taper Gooseneck w/Wool	4.0mm 6.5mm x 78.5mm	392611936	23332.1	23332.5	
Liners for Varian 1078/1079 Injection Ports	ID OD x Length	Similar to Varian part #	ea.	cat.# 5-pk.	25-pk.
 Sky 3.4mm Split-No Frit	3.4mm 5.0mm x 54mm	392611945	23329.1	23329.5	23329.25

COLUMN INSTALLS THIS END

## Reliably Detect VOCs With PID Lamps



### Features

Longer life.	More for your money with each lamp.
Model 108-BTEX has 33% more output than older models.	Operate continuously at 1 ma and 250 °C for 6 months and still have better than 50% of the initial output.
Lamps individually tested.	Your lamp will work to specifications.
Variety of models.	Among the best lamps for most instrumentation.

### Benefits

Description	eV Rating	Base	qty.	cat. #
PID Lamp, Model 103 C	10.2	1.375"	ea.	20676
PID Lamp, Model 108	10.0/10.6	0.781"	ea.	20675
PID Lamp, Model 108-BTEX	10.0/10.6	0.781"	ea.	23020
PID Lamp Polishing Kit (contains iron oxide cleaning compound, swabs, and instructions)			kit	20674

## Did You Know That Restek Carries a Complete Line of ETP Electron Multipliers for Mass Spectrometry?



Description	qty.	cat.#
<b>Electron Multipliers for Agilent GC/MS and LC/MS</b>		
For Agilent 5970 GC/MS	ea.	23072
For Agilent 5971, 5972, GC GC/MS	ea.	23073
For Agilent 5973 & 5975 GC/MS (includes mount for initial installation)	ea.	23074
For Agilent 5973 & 5975 GC/MS and LC/MSD (Replacement Multiplier)	ea.	23075
<b>Electron Multiplier for Thermo Finnigan GC/MS</b>		
For Thermo TRACE DSQ, DSQII, and Polaris-Q GC/MS	ea.	23081

Other ETP Electron Multipliers are available upon request. Call your Restek representative if you do not see your instrument listed.

## Easily and Consistently Seat Ferrules Onto Your Columns

- Capillary installation gauge prevents crushed column ends.
- Made from high-quality stainless steel.

### Using the capillary installation gauge for Agilent-style fittings.



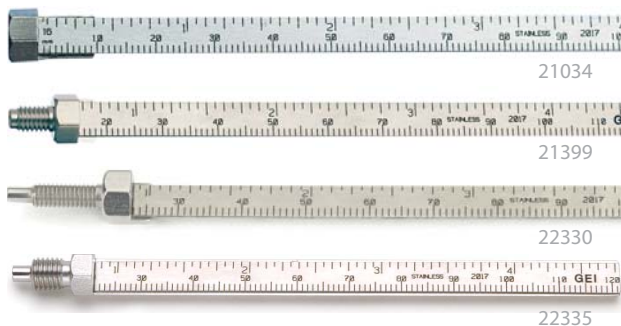
Install the column nut and ferrule onto the column. Slide the column into the installation gauge to the recommended insertion distance. Finger-tighten the nut.



Tighten the assembly to ensure a properly seated ferrule. Loosen the assembly and remove the column and column nut.



The ferrule will be properly seated, and should remain in place when light force is applied. If it slides loosely on the column, repeat procedure.



Description	qty.	cat.#
Capillary Installation Gauge for Agilent-style fittings (compact ferrules)	ea.	21034
Capillary Installation Gauge for 1/16" fittings (1/16" ferrules)	ea.	21399
Capillary Installation Gauge for Thermo Scientific TRACE & Focus SSL (M4 ferrules)	ea.	22330
Capillary Installation Gauge for Varian GCs for use with 1/16" ferrules	ea.	22335
Capillary Installation Gauge for Shimadzu 17A, 2010, and 2014 GCs	ea.	22333

\*For use with graphite ferrules only.

## High-Quality Glass Labware at an Inviting Price

- Kuderna-Danish Evaporator, Snyder Columns and Concentrator Tubes
- Soxhlet Extraction Apparatus
- Erlenmeyer and Class A Volumetric Flasks
- Auto-Zero and Squeeze-O-Matic Burets
- Separatory Funnels
- Repeating Pipettes
- Impingers

Buy today at [www.restek.com/glassware](http://www.restek.com/glassware)



# Inlet Seals & Injection Ports



## Buy One 10-Pack of Inlet Seals and Get One 10-Pack FREE!



### Replacement Inlet Seals for Agilent GCs

Single-Column Installation (0.8mm ID) Replacement Inlet Seal	Restek cat.#	1st 10-pk. List Price	2nd 10-pk. Special Promo
Gold-Plated*, 2 x 10-pks.	21318-409B	List Price	FREE
Siltek Treated, 2 x 10-pks.	21320-409B	List Price	FREE
0.25/0.32mm ID Dual-Column Installation (1.2mm ID) Replacement Inlet Seal			
Gold-Plated, 2 x 10-pks.	21306-409B	List Price	FREE
Siltek Treated, 2 x 10-pks.	21308-409B	List Price	FREE
0.8mm ID Cross-Disk Inlet Seal			
Gold-Plated, 2 x 10-pks.	20476-409B	List Price	FREE
Siltek Treated, 2 x 10-pks.	20474-409B	List Price	FREE

\*0.8mm ID gold-plated inlet seal is similar to Agilent part #18740-20885.

Note: The 1.2mm inlet seal is recommended when installing two columns using a two-hole Vespel®/graphite ferrule.

### Dual Vespel® Ring Inlet Seals

Washerless, leak-tight seals for Agilent GCs

0.8mm ID Dual Vespel Ring Inlet Seal	Restek cat.#	1st 10-pk. List Price	2nd 10-pk. Special Promo
Gold-Plated, 2 x 10-pks.	21241-409B	List Price	FREE
Siltek Treated, 2 x 10-pks.	21243-409B	List Price	FREE
1.2mm ID Dual Vespel Ring Inlet Seal			
Gold-Plated, 2 x 10-pks.	21247-409B	List Price	FREE
Siltek Treated, 2 x 10-pks.	21249-409B	List Price	FREE
0.8mm ID Dual Vespel Ring Cross-Disk Inlet Seal			
Gold-Plated, 2 x 10-pks.	22084-409B	List Price	FREE
Siltek Treated, 2 x 10-pks.	22086-409B	List Price	FREE

Simply place your order referencing the catalog number from the tables above. Offer ends September 30, 2011. Discount cannot be combined with any other offers. Distributor participation may vary.

## Convenient, Complete Injection Ports for Agilent GCs



restek innovation!

No more damaged gas lines!

Not available in Germany or Japan.

### EZ Twist Top® Split/Splitless Injection Port for Agilent 7890 GCs

Description	qty.	cat.#
Injection Port Assembly Kit	kit	22177
Injection Port Assembly Kit, Siltek Treated	kit	22178

### EZ Twist Top® Split/Splitless Injection Port for Agilent 6890/6850 GCs for use with large canister type filter

Description	qty.	cat.#
Injection Port Assembly Kit	kit	22735
Injection Port Assembly Kit, Siltek Treated	kit	22736

### EZ Twist Top® Split/Splitless Injection Port for Agilent 6890/6850 GCs for use with Pencil Traps

Description	qty.	cat.#
Injection Port Assembly Kit	kit	22721
Injection Port Assembly Kit, Siltek Treated	kit	22722

### EZ Twist Top® Split/Splitless Injection Port for Agilent 5890 GCs

Description	qty.	cat.#
Injection Port Assembly Kit	kit	22725
Injection Port Assembly Kit, Siltek Treated	kit	22726

**Injection Port Assembly Kits** include: split/splitless weldment, shell weldment, 2 weldment O-rings, Siltek Dual Vespel Ring inlet seal, septum nut, reducing nut, stainless steel capillary nut for use with 1/16" ferrules, and weldment removal tool *Note: Split/splitless weldment not included in the 7890 kit.*

**Injection Port Assembly Kit, Siltek Treated Kits** include: Siltek split/splitless weldment, Siltek shell weldment, 2 weldment O-rings, Siltek Dual Vespel Ring inlet seal, septum nut, reducing nut, stainless steel capillary nut for use with 1/16" ferrules, and weldment removal tool *Note: Siltek split/splitless weldment not included in the 7890 kit.*

For more information on the EZ Twist Top® injector port and replacement parts, visit [www.restek.com](http://www.restek.com) and search for EZ Twist Top.

## Upgrade the FID Jets in your Agilent GCs

### Standard Version

- Engineered with a fluted tip to guide the capillary column into the jet.
- Threads specially coated for easy installation and removal.
- Special processing ensures the highest degree of cleanliness.
- Meets or exceeds original manufacturer's performance.

### High-Performance Version—Siltek® Treated

- Similar to the standard version, but Siltek® treated.
- Extremely inert, for use with active compounds.



### Which FID Jet Should I Use?

There are two FID jet configurations for Agilent GCs. The longer "adaptable" jet fits both 5890 and 6890 GCs, and can be used with capillary or packed columns. The shorter "dedicated" jet is for the FID in the 6890/7890 GC that is designed only for use with capillary columns.

### Capillary Adaptable FID Replacement Jet for Agilent 5890/6890/6850 GCs

Description	Similar to Agilent part #	qty.	cat.#	qty.	cat.#
Standard, 0.011-Inch ID Tip	19244-80560	ea.	20670	3-pk.	20671
High-Performance Siltek Treated, 0.011-Inch ID Tip	19244-80560	ea.	20672	3-pk.	20673



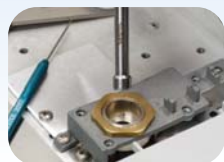
### Capillary Dedicated FID Replacement Jet for Agilent 6890/6850/7890 GCs

Description	Similar to Agilent part #	qty.	cat.#	qty.	cat.#
Standard, 0.011-Inch ID Tip	G1531-80560	ea.	21621	3-pk.	21682
High-Performance Siltek Treated, 0.011-Inch ID Tip	G1531-80560	ea.	21620	3-pk.	21683
High-Temperature, 0.018-Inch ID Tip	G1531-80620	ea.	23078	3-pk.	23079



## Easily Remove and Install FID Jets

FID Jet Removal Tool for Agilent 5890/6890/6850/7890 FIDs



Slip tool over FID jet...



...loosen jet...



...and remove.

Description	qty.	cat.#
FID Jet Removal Tool for Agilent 5890/6890/6850/7890 FIDs	ea.	22328

restek **innovation!**

- Securely grips jet in socket.
- Unique, ergonomic handle—easy to hold.



## Eliminate Septum Troubles With Merlin Microseal Septa Kits

### Merlin Microseal Septa for Agilent GCs

Microseal High-Pressure Septa, 400 Series (100psi)	Merlin#	Similar to Agilent#	cat.#
Standard kit (nut, 2 septa)	404	Not offered	22810
Starter kit (nut, 1 septum)	405	5182-3442	22811
Nut kit (1 nut, fits 300 & 400 series septa)	403	5182-3445	22809
High-pressure replacement septum (1 septum)	410	5182-3444	22812
Microseal Septa, 300 Series (30psi)	Merlin#	Similar to Agilent#	cat.#
Standard kit (nut, 2 septa)	304	5181-8833	22813
Starter kit (nut, 1 septum)	305	5181-8816	22814
Microseal replacement septum (1 septum)	310	5181-8815	22815

### Merlin Microseal Septa for PerkinElmer and Varian GCs

Microseal Septa for PerkinElmer & Varian GCs	Merlin#	Similar to	cat.#
Varian 1078/1079 Kit (septum cap adapter, O-ring, nut, septum)	21-11w	—	22779
Varian 1177 Kit (septum cap adapter, O-ring, nut, spacer ring, septum)	22-11w	—	22780
PerkinElmer Kit (septum cap adapter, O-ring, nut, 2 septa)	51-12w	PE# N9303344	22781
Replacement Septum for Varian and PerkinElmer Kits (1 septum)	21-01w	PE# N9303345	22782



Note: Merlin Microseal septa require a 23-gauge (0.63 mm, 0.025") needle or probe with a blunt, truncated conical tip. Compatible syringes and replacement needles are available at [www.restek.com](http://www.restek.com)

# Accurate Results Start With Reliable Equipment

## Restek ProFLOW 6000 Electronic Flowmeter



Cat. # 22656

[www.restek.com/flowmeter](http://www.restek.com/flowmeter)

## Restek Electronic Leak Detector



Cat.# 22839

[www.restek.com/leakdetector](http://www.restek.com/leakdetector)

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Lit. Cat.# GNFL1369-INT

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**Restek U.S.** • 110 Benner Circle • Bellefonte, PA 16823 • 814-353-1300 • 800-356-1688 • fax: 814-353-1309 • [www.restek.com](http://www.restek.com)

**Restek France** • phone: +33 (0)1 60 78 32 10 • fax: +33 (0)1 60 78 70 90 • e-mail: [restek@restekfrance.fr](mailto:restek@restekfrance.fr)

**Restek GmbH** • phone: +49 (0)6172 2797 0 • fax: +49 (0)6172 2797 77 • e-mail: [info@restekgmbh.de](mailto:info@restekgmbh.de)

**Restek Ireland** • phone: +44 (0)2890 814576 • fax: +44 (0)2890 814576 • e-mail: [restekireland@aol.com](mailto:restekireland@aol.com)

**Restek Japan** • phone: +81 (3)6459 0025 • fax: +81 (3)6459 0025 • e-mail: [ryosei.kanaguchi@restek.com](mailto:ryosei.kanaguchi@restek.com)

**Thames Restek U.K. LTD** • phone: +44 (0)1494 563377 • fax: +44 (0)1494 564990 • e-mail: [sales@thamesrestek.co.uk](mailto:sales@thamesrestek.co.uk)

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