

Dual Vespel® Ring Inlet Seals

Washerless, Leak-Tight Seals for Thermo 1300/1310 GCs

- Does not require a separate washer.
- Requires less torque to seal.
- Does not require retightening of reducing nut after several oven cycles.
- Extends column lifetime by preventing oxygen from reaching the column.
- Same price as the regular inlet seals with washers.
- Siltek® treatment provides enhanced inertness versus stainless steel.



Patented

Feature	Benefit
Vespel® ring embedded in bottom surface.	Eliminates need for a washer.
Vespel® ring embedded in top surface.	Very little torque required to make seal—reduces operator variability.
Lower leak rate compared to OEM metal inlet seals.	Less detector noise.
Prevents oxygen from permeating the carrier gas.	Increases column lifetime.

Our patented dual Vespel® ring inlet seal greatly improves injection port performance—it stays sealed, even after repeated temperature cycles, without retightening the reducing nut! This seal features two soft Vespel® rings, one embedded in its top surface and the other embedded in its bottom surface. These rings eliminate the need for a washer and ensure very little torque is needed to make a leak-tight seal. The rings will not harm the critical seal in the injector body, or any other surface, and are outside the sample flow path.

To reduce breakdown and adsorption of active compounds, use a gold-plated or Siltek®-treated seal.

	2-pk. cat.#	10-pk. cat.#
0.8 mm ID Dual Vespel Ring Inlet Seal		
Gold-Plated	22243	22244
Siltek-Treated	22247	22248
1.2 mm ID Dual Vespel Ring Inlet Seal	2-pk. cat.#	10-pk. cat.#
Gold-Plated	22245	22246
Siltek-Treated	22249	22250

Replacement Inlet Seals With Washers

- Siltek® treatment provides inertness similar to fused silica.
- All seals include washers.

Replacement Inlet Seals for Thermo Scientific 1300/1310 GCs

The inlet seal at the base of the GC injection port contacts the sample and must be changed frequently to prevent adsorption of active compounds. In addition, septum fragments and sample residue accumulate on the disk surface, requiring disk replacement.

Single-Column Installation

0.8 mm ID (Opening)	Similar to Thermo Part #	qty.	cat.#
Gold-Plated	290GA082	2-pk.	22231
Gold-Plated	290GA081	10-pk.	22232
Siltek-Treated	290GA092	2-pk.	22237
Siltek-Treated	290GA091	10-pk.	22238

0.25/0.32 mm ID Dual-Column Installation

1.2 mm ID (Opening)	Similar to Thermo Part #	qty.	cat.#
Gold-Plated	290GA122	2-pk.	22233
Gold-Plated	290GA121	10-pk.	22234

Cross-Disk Inlet Seals for Thermo Scientific 1300/1310 GCs

All seals include washers.

0.8 mm ID Cross-Disk Inlet Seal	Similar to Thermo Part #	qty.	cat.#
Gold-Plated	290GA083	2-pk.	22235
Gold-Plated	290GA084	10-pk.	22236
Siltek-Treated	290GA093	2-pk.	22239
Siltek-Treated	290GA094	10-pk.	22240



22231



22237

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



22235



22239

Supplies for Thermo Scientific GCs

Inlet Liner Seals

for Thermo Scientific TRACE PTV



Description	Max. Temp.	Similar to TS Part #	qty.	cat.#
Inlet Liner Seals for Thermo Scientific TRACE PTV	450 °C	29013417	2-pk.	21392

Graphite Sealing Ring

for Thermo Scientific TRACE, 8000, 8000 TOP & Focus SSL Instruments



Description	Max. Temp.	Similar to TS Part #	qty.	cat.#
Graphite Sealing Ring for Thermo Scientific TRACE, 8000, 8000 TOP & Focus SSL	450 °C	290-334-06	ea.	21898
	450 °C	290-334-06	2-pk.	21899

Premium Non-Stick BTO® Septa



Septa (9 mm, 9.5 mm, 11 mm, 17 mm) for Thermo Scientific GCs Premium Non-Stick BTO® Septa

- Usable to 400 °C inlet temperature*.
- New plasma coating eliminates sticking in the injection port.
- Precision molding ensures consistent, accurate fit.
- Partial predrilled CenterGuide design.
- Preconditioned and ready to use.
- Packaged in ultra-clean blister packs**.
- Each batch GC-FID tested.
- Bleed and temperature optimized; ideal for demanding GC and GC-MS applications.

Septum Diameter	50-pk. cat.#	100-pk. cat.#
Premium Non-Stick BTO Septa (usable to 400 °C inlet temp.*)		
9 mm CenterGuide	27084	27085
9.5 mm (3/8")	27086	27087
11 mm (7/16") CenterGuide	27090	27091
17 mm CenterGuide	27096	27097

Note: Due to differences in inlet design, the actual septum temperature for a given inlet setpoint can vary by manufacturer. Restek recommends using only BTO® septa in Thermo TRACE and Focus GCs.

*For 17 mm inlets, the maximum temperature is 330 °C. For all injectors, minimum recommended operating temperature for BTO® septa is 250 °C.

**12.7 mm and 17 mm septa packaged in precleaned glass jars.

HANDY septum size chart

Instrument	Septum Diameter (mm)
Thermo Scientific TRACE GC, 8000, 8000 TOP, GCQ w/TRACE, PTV, 8000 series17	17
TRACE 1300, 1310	11
Finnigan (TMQ) GC 9001, GCQ, QCQ, TRACE 2000	9.5

Septum Cap for Split/Splitless Injector on Thermo Scientific TRACE, 8000, 8000 TOP & Focus SSL



24971

Description	Similar to TS Part #	qty.	cat.#
Septum Cap for Split/Splitless Injector on Thermo Scientific TRACE, 8000, 8000 TOP & Focus SSL	35001050	ea.	24971



Septa Holder Kits

for Thermo Scientific TRACE, 8000, 8000 TOP & Focus SSL

- Includes septum support and holder.
- Made from high-quality stainless steel.
- Silcosteel® -AC-treated version helps with septum removal.

Description	Similar to TS Part #	qty.	cat.#
Septa Holder for Thermo Scientific TRACE, 8000, 8000 TOP & Focus SSL	23303015, 350054335	kit	21299
Silcosteel-AC-Treated Septa Holder for Thermo Scientific TRACE, 8000, 8000 TOP & Focus SSL	23303015, 35005433	kit	24972

Gold-Plated Liner Cap

for Split/Splitless Injector on Thermo Scientific TRACE, 8000, 8000 TOP & Focus SSL



22089

Description	Similar to TS Part #	qty.	cat.#
Gold-Plated Liner Cap for Split/Splitless Injector on Thermo Scientific TRACE, 8000, 8000 TOP & Focus SSL	29004290	ea.	22089

Silver Seals for Thermo Scientific TRACE, 8000, 8000 TOP & Focus SSL



23057

Description	Similar to TS Part #	qty.	cat.#
Silver Seal for Split/Splitless Injector	29033629	10-pk.	23057
	29033629	20-pk.	23058



Adapters for Capillary Columns
on Thermo Scientific TRACE & Focus SSL

- Use same installation distance as manufacturer's adaptors.
- Made of high-quality stainless steel.
- Siltek®-treated version available for additional inertness.

Description	Similar to TS Part #	qty.	cat.#
For use with standard 1/16" ferrules.			
Adaptor for Capillary Column on Detector Base		ea.	24916
Adaptor for Capillary Column on Split/Splitless Injector		ea.	24917
Siltek Treated Adaptor for Capillary Column on Split/Splitless Injector		ea.	20543
For use with M4 ferrules.			
Adaptor for Capillary Column on Detector Base	347 25 436	2-pk.	24969
Adaptor for Capillary Column on Split/Splitless Injector	347 05 451	ea.	24970
Siltek Treated Adaptor for Capillary Column on Split/Splitless Injector		ea.	20544

Nut for Terminal Fitting
for Thermo Scientific TRACE GCs



Description	Similar to TS Part #	qty.	cat.#
Nut for Terminal Fitting for Thermo Scientific TRACE GCs	350 221 25	2-pk.	24896

Fixing Nut for Capillary Column for Split/Splitless Injector on Thermo Scientific TRACE, 8000, 8000 TOP & Focus SSL



Made of high-quality stainless steel.

Description	Similar to TS Part #	qty.	cat.#
Fixing Nut for Capillary Column for Split/Splitless Injector on Thermo Scientific TRACE, 8000, 8000 TOP & Focus SSL	350 32 423	5-pk.	24973

Graphite Ferrules (M4 Fittings)
for Thermo Scientific TRACE, 8000, 8000 TOP & Focus GCs



Ferrule ID	Fits Column ID	Similar to TS Part #	Graphite 2-pk.	Graphite 10-pk.
0.3 mm	0.10-0.15 mm	—	22221	22222
0.4 mm	0.18-0.28 mm	29013488 (2-pk.) 29053488 (10-pk.)	20280	20281
0.5 mm	0.32 mm	29013487 (2-pk.) 29053487 (10-pk.)	20282	20283
0.8 mm	0.45-0.53 mm	29013486 (2-pk.) 29053486 (10-pk.)	20284	20285

FID Jet for Thermo Scientific TRACE & Focus GCs
Meets or exceeds original manufacturer's performance.



Description	Similar to TS Part #	qty.	cat.#
FID Jet for Thermo Scientific TRACE & Focus GCs	404 043 01	ea.	23080

WORLD-CLASS SERVICE & LOCAL CONNECTIONS

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Liner Cap Removing Tool

for Thermo Scientific GCs:
Focus GC, TRACE GC Ultra &
TRACE GC x GC

- Easily loosens the liner cap from the injector.
- Unique, ergonomic handle—easy to grip.



Remove septum cap, septum holder, septum, and septum support.



Place tool on liner cap. Align two pins on bottom of tool with two open slots on liner cap.



Turn counter-clockwise to loosen liner cap.



Use tweezers (cat.# 20101) to remove liner cap.

Description	Similar to TS Part #	qty.	cat.#
Liner Cap Removing Tool for Thermo Scientific GCs	205 070 10	ea.	24937



Metric Wrench Set

High-quality 6 x 7 mm, 8 x 10 mm, and 16 x 17 mm wrenches for tightening a wide variety of fittings.

Description	qty.	cat.#
Metric Wrench Set	set	22997



Metric 9-Piece, Ball-Point Hex Key Set

Includes nine metric hex keys (Allen wrenches): 1.5, 2, 2.5, 3, 4, 5, 6, 8, and 10 mm.

Description	qty.	cat.#
Metric 9-Piece, Ball-Point Hex Key Set	set	22999



Capillary Installation Gauge

for Thermo Scientific TRACE & Focus SSL (M4 Ferrules)

- Seats ferrule* onto column for consistent installations.
- Prevents crushed column ends.
- Made from high-quality stainless steel.



Install nut and ferrule onto column. Cut column end squarely. Slide column into installation gauge to recommended insertion distance. Fingertighten column nut.

Tighten assembly to ensure a properly seated ferrule. Loosen assembly and remove 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 Thermo Scientific TRACE & Focus SSL (M4 ferrules)	ea.	22330

*For use with graphite ferrules only.



Everything you need in one complete kit!

22183



Make Life Easier (MLE) Capillary Tool Kit

for Thermo Scientific GCs

Includes:

- Capillary installation gauge for Thermo Scientific GCs
- Liner cap removing tool for Thermo Scientific GCs
- 1/8", 3/16", and 1/4" nylon brushes
- 1/4", 3/8", and 3/16" stainless steel wire tube brushes
- Stainless steel surface brush
- 6 stainless steel jet reamers (0.25–0.65 mm OD)
- 1/4" x 5/16" open end wrench
- 3/8" x 1/16" open end wrench
- 6 mm x 7 mm open end wrench
- 8 mm x 10 mm open end wrench
- 16 mm x 17 mm open end wrench

- Rubber-tipped slide-lock tweezers
- Scoring wafers
- Inlet liner removal tool
- Septum puller
- Mini wool puller/insertor tool
- 4-inch tapered needle file
- Swivel head flashlight
- Mini hand drill set
- 15 cm compact steel ruler
- Pocket magnifier
- High-temperature string (1 meter)
- Pipe cleaner (12 inch)
- Cotton tip swabs (pk. of 25)

Description	qty.	cat.#
MLE Capillary Tool Kit	kit	22183

EZ No-Vent® GC Column-Mass Spectrometer Connector

for Thermo Scientific Focus DSQ GC Mass Spectrometers

- Change GC-MS columns in minutes without venting—100 µm transfer line maintains vacuum and prevents venting.
- Easy to install and maintain—no special tools or plumbing required.
- Gold-plated body for inertness.
- High-temperature polyimide ferrules eliminate leaks at the problematic transfer line fitting.
- Lower cost than other “no-vent” fittings.

We designed the EZ No-Vent® GC column-mass spectrometer connector to be simple and easy to use. A critical orifice in the EZ No-Vent® connector minimizes the amount of oxygen allowed into the MS source, eliminating the need for purge gas as is required for other manufacturers’ vent systems. This enables you to skip the lengthy vent and pump-down cycle otherwise required when you make a column change, saving nearly a day of downtime with each column change. The EZ No-Vent® connector easily attaches to the MS source without special tools or extra plumbing.



22454



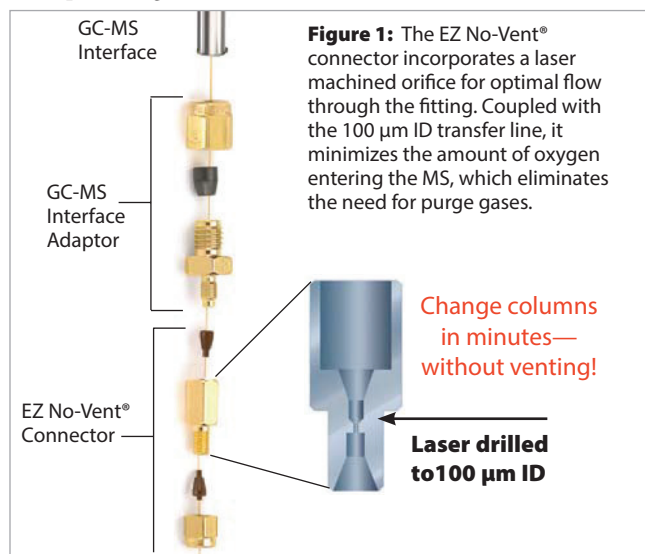
22082

Transfer Line Reducing Kit

for Thermo Scientific TRACE & Focus DSQ Mass Spectrometers

Meets or exceeds original manufacturer’s performance.

Description	Similar to TS part #	qty.	cat.#
Transfer Line Reducing Kit for Thermo Scientific TRACE & Focus DSQ Mass Spectrometers	76458-2014s, 76458-2009s, A0101-03151	kit	22082



Description	qty.	cat.#
EZ No-Vent Connector Kit for Thermo Scientific Focus DSQ GC Mass Spectrometers Includes: EZ No-Vent Connector, interface adaptor, two 0.4 mm ID adaptor ferrules for capillary column, two 0.4 mm ID ferrules for transfer line, 100 µm deactivated transfer line (3 ft), column plug, column nut	kit	22454
Replacement Ferrules for connecting capillary column to EZ No-Vent Connector:		
0.30±0.40 mm Tubing OD (Virgin Polyimide)	2-pk.	21015
0.40±0.50 mm Tubing OD (Virgin Polyimide)	2-pk.	21016
Replacement Ferrules (polyimide) for connecting transfer line to EZ No-Vent connector: 0.4 mm ID	2-pk.	21043
Replacement 100 µm Deactivated Transfer Line	3 ft	21018
Replacement EZ No-Vent Column Nut	20-pk.	23100
Replacement EZ No-Vent Plug	5-pk.	23112
Open-End Wrenches, 1/4" x 5/16"	2-pk.	20110
Open-End Wrenches, 3/8" x 7/16"	2-pk.	22455

100% Satisfaction Guaranteed

Sky®

Inlet Liners

Looking for the Best Solution?

Sky® inlet liners, featuring a state-of-the-art deactivation, give you the inertness you need for accurate, reproducible trace-level results.

[See pages 193–202 for details.](#)