



Simplify your GC Connections

- Chemically inert
- Superb operational stability
- Low dead volume
- Easy to install and leak free



SilTite™ μ -union

A tiny connector for guard columns or GCxGC.



SilTite™ FingerTite

Ferrule system for capillary columns.



SilFlow™ MicroChannel Device (MCD)

Enables column switching and splitting, backflushing, GCxGC.



The Importance of GC Connections

Currently available connectors suffer from issues with reliability, robustness, excessive dead volumes and inertness, leading to poor chromatography and instrument down time.

SGE's range of GC Connections are designed to minimize your time spent on installation. Our range includes:



SilTite™ μ-union

A tiny connector for guard columns or GCxGC.

Designed to connect columns without the complications of conventional connectors.



SilTite™ FingerTite

Ferrule system for capillary columns.

Designed for each injector and detector, simplify your GC column installation.



SilFlow™ MicroChannel Device (MCD)

Enables column switching, splitting, backflushing and GCxGC.

Designed for your column splitting needs, ensures no detectable peak distortion.

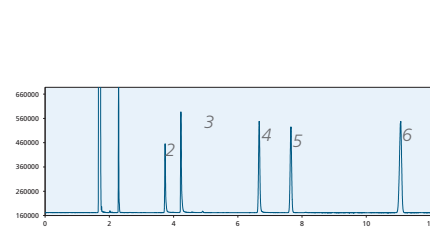
Enhanced Chromatography Features

• Chemically inert

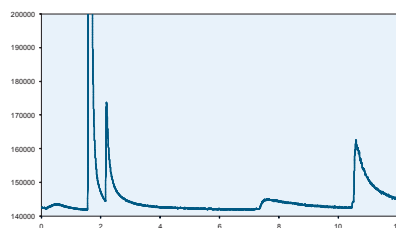
Enabled by SGE's expertise in surface chemistry, each metal surface is treated to ensure optimized chromatography.

Column: BPX5 30 m x 0.25 mm ID x 0.25 μm (P/N 054101)
Column Temperature: 140 °C
FID Temperature: 380 °C

Injector Temperature: 240 °C
Sample: 1 ng on-column of (1) n-Decane (2) 4-chlorophenol (3) n-Decylamine (4) Undecanol (5) Bi phenyl (6) Pentadecane

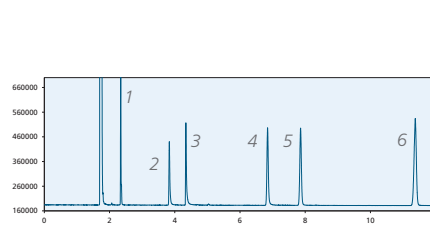


a) Column only.



b) Column with metal connector without special deactivation.

Figures a and b: Impact of non-deactivated metal surfaces on chromatography: Lost peaks and poor resolution.



c) Column with deactivated SilFlow™ (GC Dean's switch).

Figure c: Fully resolved peaks and retention of analytes when using SGE's GC Connections.

• Superb operational stability

All of SGE's GC Connections are manufactured from high grade stainless steel, and have minimal thermal mass, ensuring there is minimal thermal lag during use. The use of stainless steel also means there is no practical limit to their maximum temperature, the only limitation is the temperature rating of the GC column.

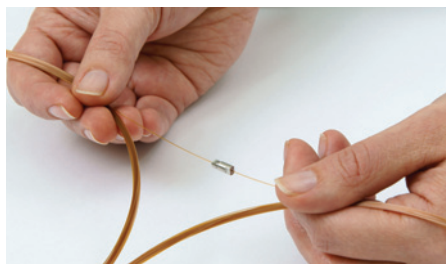
• Low dead volume

SilTite FingerTite and SilFlow FingerTite ferrules used in SGE GC Connections result in low dead volume fittings giving you optimal peak shapes.

• Easy to install and leak free

Each of SGE's GC Connections are designed with FingerTite fittings that are easy to set up and can be tightened using finger force to achieve a perfect, reliable seal, even for the most sensitive MS systems – no wrenches required!

SilTite μ -Union



The SilTite μ -union is a connector for GC Capillary columns. It is useful for connecting a pre-column or a guard column. This tiny connection will make a big difference to your chromatography!

Low thermal mass: 9 mm in length and mass <0.5 g.

Available in kits to connect a range of columns from 0.1 mm ID through to 0.53 mm ID.

Kits contain:

- 5 x ferrules
- 2 x union fittings
- Installation jigs
- Installation instructions

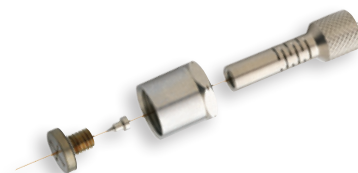
The SilTite μ -union comes fitted standard when you order an SGE GC Capillary column with integrated guard (5 m). Just add SGXX to the end of the column part number where XX is the column ID e.g. 054101SG32 for a 0.32 mm ID guard on column part number 054101.

Column 1 ID (mm)	Column 2 ID (mm)	Part Number
0.1 – 0.25	0.1 – 0.25	073560
0.1 – 0.25	0.32	073561
0.1 – 0.25	0.53	073562
0.32	0.32	073563
0.32	0.53	073564
0.53	0.53	073565

Replacement parts available – contact your local SGE office or Authorized Distributor.

SilTite FingerTite Ferrules - Injector and Detector

- The next generation ferrule system for gas chromatography systems (Agilent, Thermo, PerkinElmer, Bruker/Varian and Shimadzu).
- Simplifies GC column installation.
- Reduces background noise in sensitive MS applications.
- Available in injector / detector or detector only kits.



	100 % Graphite	Graphite Vespe ^l ®	SilTite FingerTite
Mechanical Strength	Soft	Hard	Hard
Temperature Limit	450 °C	350 °C	No Practical Limit
Grip strength on column	Soft	Moderate	Strong
Doesn't need retightening after installation	✓	x	✓
Ideal for GC-MS applications (minimal porosity)	x	✓	✓
No tools required for installation and removal	x	x	✓
Permanent positioning of ferrule	x	x / ✓	✓
No deterioration	x	x	✓
Cannot break the capillary column with over-tightening	x	x	✓
No column creep	x	x	✓
Chemically inert	x	x	✓



The SilTite FingerTite ferrule requires a unique adapter to enable the finger force connection. Purchase one of the starter kits with the corresponding adapters for your system, complete the one off 5 minute install using the instructions provided, and you are ready to go!

SilFlow - MicroChannel Device (MCD)

SilFlow micro fluidic platform enables maximum chromatography performance. Common uses include column switching and splitting, back flushing, GC x GC.

SilFlow microchannel device (MCD) available - 3 and 4 port GC splitters, and a Deans' switch MCD, perfect for multidimensional analyses and comprehensive chromatography.



SilFlow GC 3 Port Splitter



SilFlow GC 4 Port Splitter

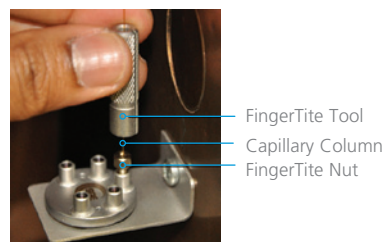
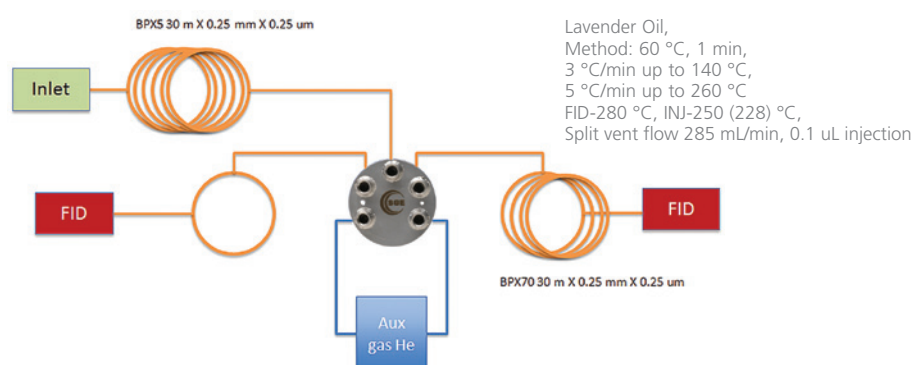


SilFlow GC Deans' Switch

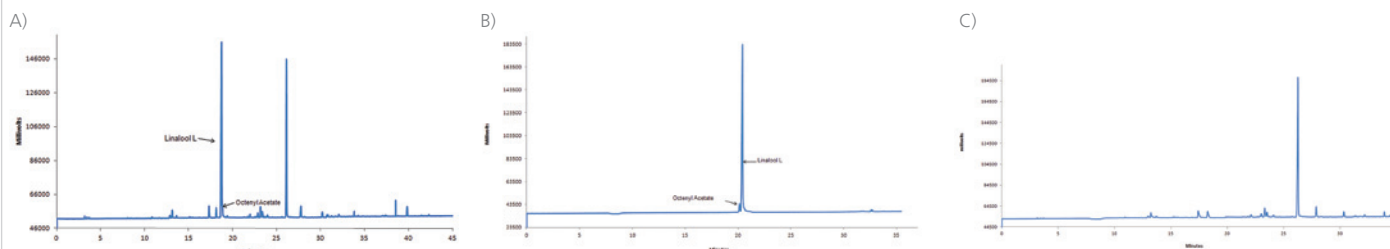


SilFlow Ferrules and Nut

Configuration For Heart Cutting Using Deans' Switch SilFlow to Dual FID



Lavender Oil Heart Cutting Results



A) Lavender oil separated on the first dimension BPX5 column - note the coelution of octenyl acetate and Linalool L.
B) Separation of the BPX5 "heart cut" on BPX70.
C) Separation of the remaining lavender oil components on BPX5.

AUSTRALIA & PACIFIC REGION

SGE Analytical Science Pty Ltd
Toll Free: 1800 800 167
Tel: +61 (0) 3 9837 4200
Fax: +61 (0) 3 9874 5672
Email: support@sge.com

JAPAN

SGE Japan Inc
Tel: +81 45 222 2885
Fax: +81 45 222 2887
Email: japan@sge.com

EUROPE

SGE Europe Ltd
European Head Office
Toll Free: 00800 2790 8999
Toll Free Fax: 00800 2626 2609
Tel: +44 1908 568 844
Fax: +44 1908 566 790
Tel France: +33 1 69 29 80 90
Fax France: +33 1 69 29 09 25
Tel Germany: +49 (0) 6155 / 60746 0
Fax Germany: +49 (0) 6155 / 60746 50
Email: europe@sge.com

UNITED STATES OF AMERICA

SGE Incorporated
Toll Free: (800) 945 6154
Tel: +1 512 837 7190
Fax: +1 512 836 9159
Email: usa@sge.com

