



SilFlow™ - Improve Your GC Connectivity

SilFlow™ stainless steel micro-fluidic platform

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



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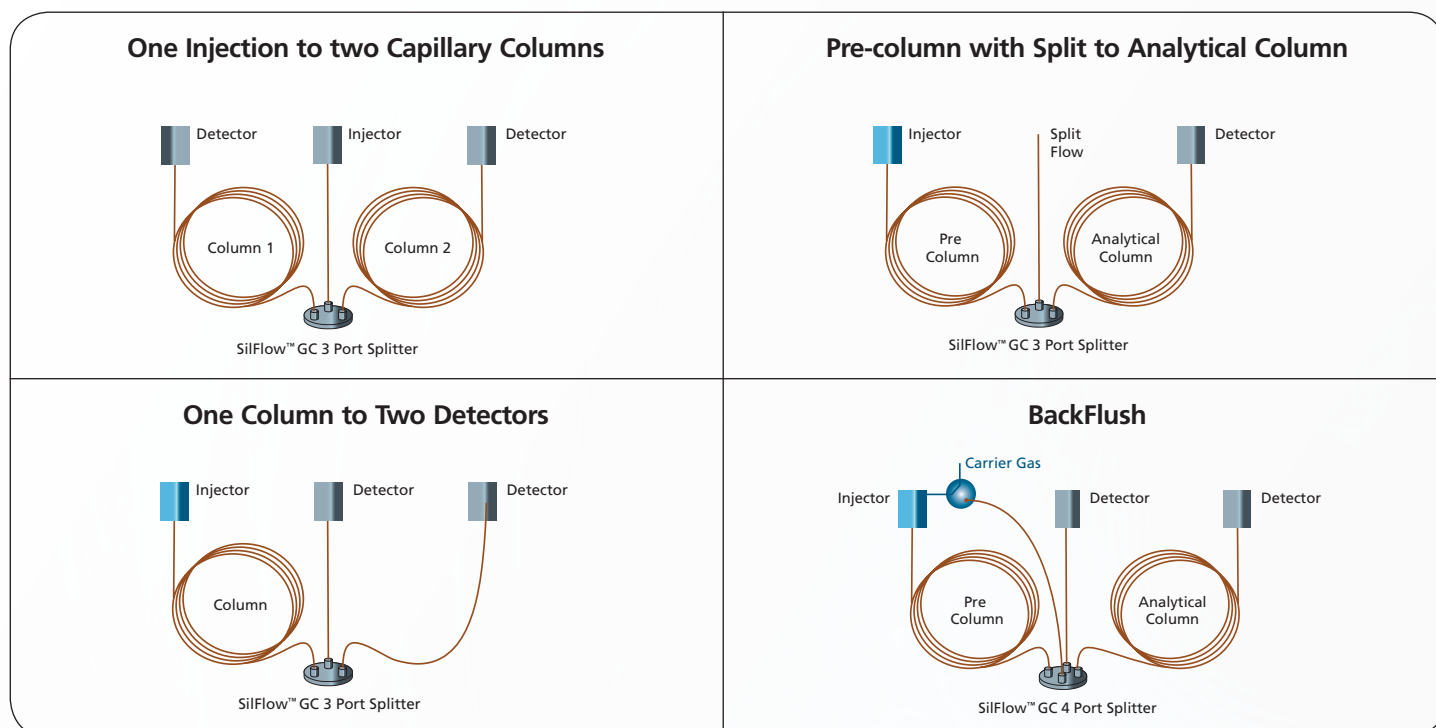
SilFlow™ Improves Your Gas Chromatography Connectivity

Introducing the Latest Chromatography Solution from SGE - SilFlow™

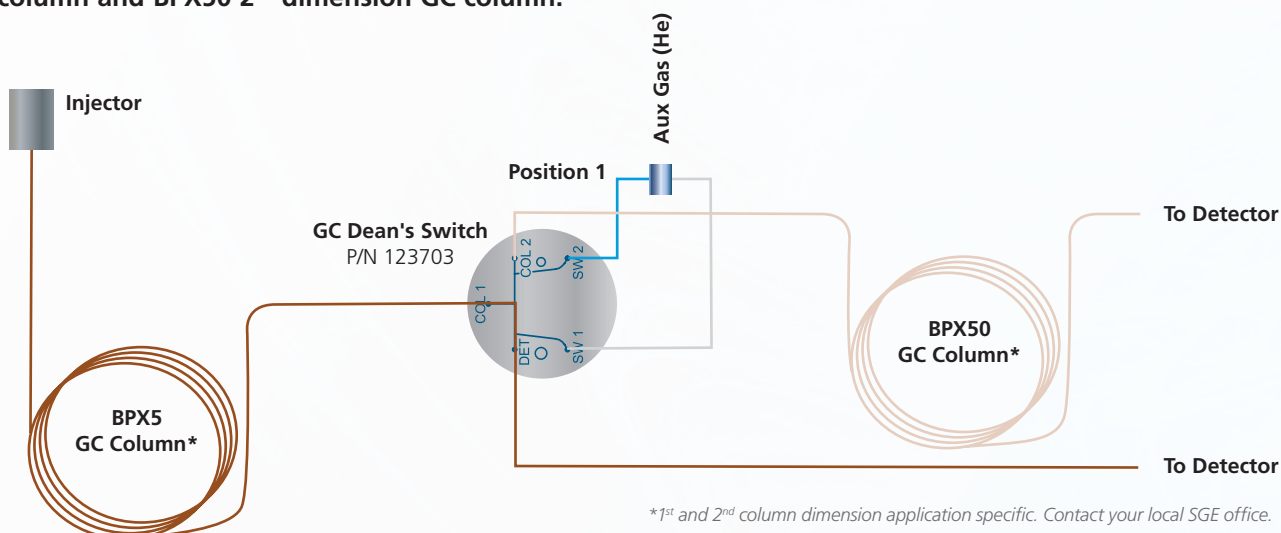
SGE understands today's chromatographers need to move from tubing based flow systems to planar microchannel systems to deliver flexible chromatography solutions. SilFlow™ is an innovation in design and fabrication resulting in a highly efficient and reliable micro fluidic platform that **improves your GC connectivity** to enable maximum chromatography performance.

SGE introduces SilFlow™ microchannel device (MCD) options for 3 port GC splitters (allowing flow splitting options with three different configurations), 4 port GC splitters (offering similar configuration flexibility as the 3 port solution) and a Dean's switch MCD, perfect for multidimensional analyses.

Some suggested application configurations for use with SGE's SilFlow™ splitters:

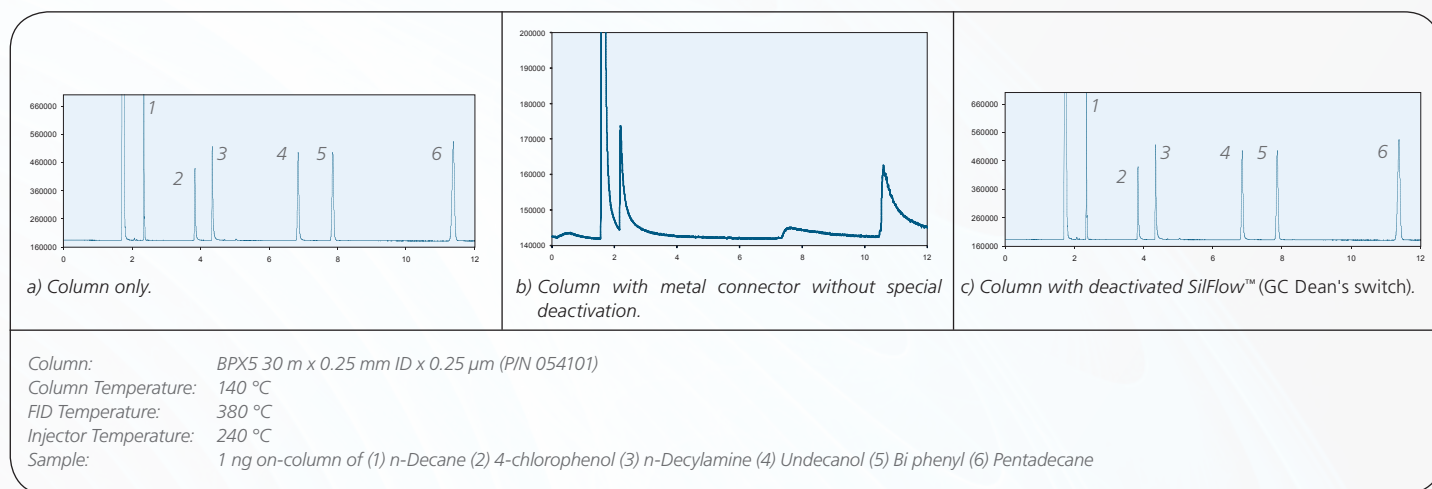


SilFlow™ GC Dean's switch connected with BPX5 (Phenyl Polysilphenylene Siloxane) 1st dimension GC column and BPX50 2nd dimension GC column.



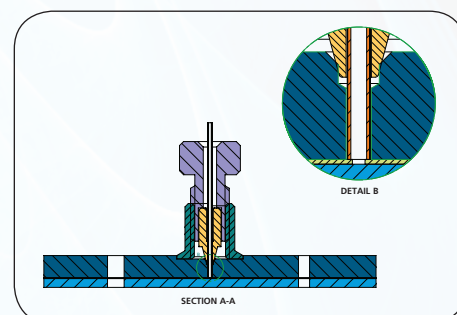
Chemically Inert

- Enabled by SGE's expertise in surface chemistry, SilFlow™ features chemically deactivated stainless steel channels avoiding active sites experienced with conventional connections.
- SilFlow™ can be incorporated into your system without impacting your chromatography.



Low Dead Volume Connections

- Conventional graphite or Vespel® ferrules cannot be used with the SilFlow™ MCD as the dimensional stability is not adequate and there is a risk of contaminating the channels.
- SilTite™ FingerTite metal ferrules result in a reliable zero dead volume connection, giving you optimized peak shapes.



Fused silica to SilFlow™ connection system using SilTite™ FingerTite metal ferrule.

Superb Operational Stability

SilFlow™ Technical Specifications:

- Pressure Capability - The SilFlow™ system can be operated at pressures greater than 25,000 psi (170,000 kPa).
- Thermal Lag - SilFlow™ tracks oven temperature up to 20 °C/min. The design of SilFlow™ alleviates cold spots and sample condensation.
- Maximum Temperature - No practical temperature limit. Limited only by the temperature rating of the GC column being used - \leq 420 °C.

Easy to Install and Leak Free

- SilFlow™ kits incorporate SilTite™ 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!



SilFlow™ Kit Contents

- SilFlow™ microchannel device (MCD)
- SilTite™ FingerTite tool
- Mounting bracket
- Appropriately sized ferrules, nuts and blanking ferrules for set up



SilFlow™ GC 3 Port Splitter



SilFlow™ GC 4 Port Splitter



SilFlow™ GC Deans' Switch

Description	Tubing Dimensions				Pack Size	Part No.	
	Port A	Port B	Port C	Port D			
SilFlow™ GC3 Port Splitter							
GC Kit (1.1)	1.1 mm OD	0.25/0.32 mm ID	0.25/0.32 mm ID	–	Kit	123720	
GC Kit (0.53)	0.53 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	–	Kit	123721	
GC Kit (0.25/0.32)	0.25/0.32 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	–	Kit	123722	
GC MCD (1.1)	1.1 mm OD	0.25/0.32 mm ID	0.25/0.32 mm ID	–	1	123723	
GC MCD (0.53)	0.53 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	–	1	123724	
GC MCD (0.25/0.32)	0.25/0.32 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	–	1	123725	
SilFlow™ GC 4 Port Splitter							
GC Kit (1.1)	1.1 mm OD	0.25/0.32 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	Kit	123730	
GC Kit (0.53)	0.53 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	Kit	123731	
GC Kit (0.25/0.32)	0.25/0.32 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	Kit	123732	
GC MCD (1.1)	1.1 mm OD	0.25/0.32 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	1	123733	
GC MCD (0.53)	0.53 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	1	123734	
GC MCD (0.25/0.32)	0.25/0.32 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	1	123735	
SilFlow™ GC Deans' Switch							
Description	Column 1	Column 2	Detector	SW1	SW2	Pack Size	Part No.
GC Kit	0.25/0.32 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	1.1 mm OD	1.1 mm OD	Kit	123703
GC MCD	0.25/0.32 mm ID	0.25/0.32 mm ID	0.25/0.32 mm ID	1.1 mm OD	1.1 mm OD	1	123726
SilFlow™ Replacement Parts							
SilFlow™ Nuts	–	–	–	–	–	10	123704
SilFlow™ Ferrules 1.1 mm ID	–	–	–	–	–	10	123705
SilFlow™ Ferrules 0.4 mm ID	–	–	–	–	–	10	123706
SilFlow™ Ferrules 0.5 mm ID	–	–	–	–	–	10	123707
SilFlow™ Ferrules 0.7 mm ID	–	–	–	–	–	10	123709
SilFlow™ Ferrules 0.8 mm ID	–	–	–	–	–	10	123742
SilTite™ FingerTite Tool	–	–	–	–	–	1	123717
SilFlow™ Compatible Deactivated Tubing							
ID	OD	Length	Part No.				
# 50µm	363µm	2m	123750				
100µm	363µm	2m	123751				
150µm	363µm	2m	123752				
200µm	363µm	2m	123753				
** SilFlow™ Auxiliary Tubing (Stainless Steel)			123755				

* Suitable for connection into 1.1 mm OD SilFlow™ 3 and 4 port splitters. # Included in SilFlow™ GC Deans' Switch Kit

SilFlow™ technology is broadly applicable to many areas in multidimensional and comprehensive chromatography – the applications are endless. SGE can create custom micro fluidic systems to improve your specific connectivity requirements. Contact your local SGE office today to discuss your SilFlow™ system needs.

Improve Your GC Connectivity.

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