CAPILLARY OUTLET SPLITTER - VSOS

The VSOS allows for the analytes from a capillary column to be split between two different detectors (Anal. Chem. 1982. 54. 2265-2270). The ratio of flow to each is controlled by adjusting the lengths of splitter tubing. The basis of the splitter function is the pressure drop across each of the splitter tubes.

As a general rule in selecting splitter tubing for capillary columns, the combined internal areas of the splitter tubing should be approximately 70 % – 80 % of the internal area of the capillary column. Once this criteria has been satisfied, the lengths of the splitter tubing should be as short as possible to minimize the overall pressure drop.

INSTALLATION

Fixed Split Ratio

A. Install the VSLNU-005 on a bracket in a convenient place in the chromatograph close to the detectors. A locknut (SSLN-16) and washer are provided.

B. Cut two lengths of fused silica tubing from the material provided to provide the desired split ratio.

NB: Make sure that the shorter of the two pieces will reach from the union across to and right up inside the detector fitting.

C. Insert two lengths of fused silica through the 1/16" stainless steel nut and into the tapered end of the two hole ferrule.

D. Make sure that the tapered end sits well down in the nut and that the tubing just protrudes through the flat side of the two hole ferrule.

E. Identify the coned out end of the union and connect the nut with the two fused silica tubes at this end.

F. Connect the capillary column at the flat end of the union using the 1/16" stainless steel nut (1.2 mm hole) and graphite vespel ferrule (0.5 mm ID).

NB: The fused silica column should be inserted right through the union and located inside the cone area of the union, but not touching the 2 hole ferrule. Glass capillary columns as used in Purge and Trap Environmental Analysis may be butt connected to the GLT at the column end of the union with the graphite vespel ferrule (0.5 mm ID) drilled out to suit the glass column.

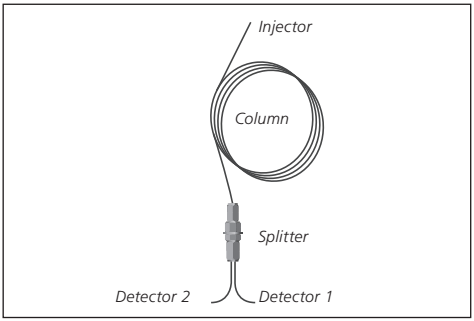

Figure 1. Outlet Splitter for Capillary Columns

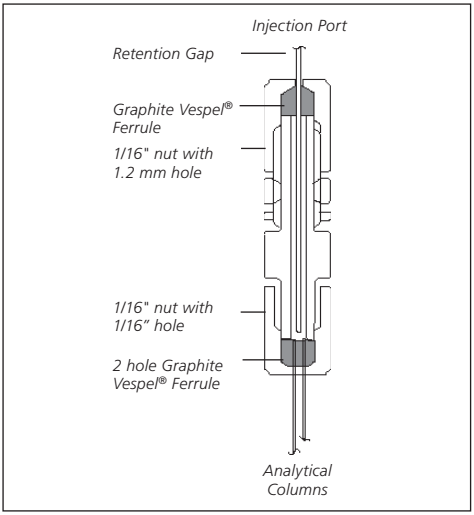

Figure 2.

G. Connect the fused silica lines to the respective detectors.

NB: Some detectors will be optimised for quite high flows of carrier gas. Electron Capture Detectors may require use of a scavenge gas. In both cases this may be added at the end of the fused silica plumbing at the point where it enters the detector. The fitting required to accomplish this is SGE detector connector DC-4 (1/4") or DC-8 (1/8").

The kit consists of the following:

Packing List

Description	Qty	Part Number
VSLNU 005 - Union	1	1236300
SSLN-16 - Locknut	1	-
SSNE-16 - Nut	1	103408
SSNE-16-012 - Nut	1	103405
1/16" Graphite Vespel® Ferrule (0.8 mm ID)	2	072655
1/16" Graphite Vespel® Ferrule (0.5 mm ID)	5	072654
1/16" Graphite Vespel® Ferrule 2 Hole Ferrule (0.4 mm ID)	5	072662
VSD/220 - Deactivated Fused Silica Tubing 0.22 mm I.D	5	062447

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

CHINA
SGE Shanghai Representative Office
Tel: +86 21 6407 9382
Fax: +86 21 6407 9386
Email: china@sge.com

FRANCE
SGE Europe Ltd
Tel: +33 1 69 29 80 90
Fax: +33 1 69 29 09 25
Email: europe@sge.com

GERMANY
SGE GmbH
Tel: +49 (0) 6155 / 60746 0
Fax: +49 (0) 6155 / 60746 50
Email: europe@sge.com

INDIA
SGE Laboratory Accessories Pvt Ltd
Tel: +91 22 24715896
Fax: +91 22 24716592
Email: sgeindia@vsnl.com

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

MIDDLE EAST
SGE Gulf
Tel: +971 6 557 3341
Fax: +971 6 557 3541
Email: gulfsupport@sge.com

UNITED KINGDOM
SGE Europe Ltd
Tel: +44 1908 568 844
Fax: +44 1908 566 790
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

www.sge.com