

# GC capillary columns

VALCOBOND® AND VALCO PLOT®

from VICI Metronics

ValcoBond® and ValcoPLOT® capillary columns meet the highest quality standards for resolution, retention characteristics, inertness, bleed, and reproducibility.

## ValcoBond® capillary columns

- Individually tested
- High temperature range
- Competitive pricing

We use proprietary liquid phase processing to produce low bleed characteristics while maintaining retention characteristics identical to the phases you are used to.

## ValcoPLOT® capillary columns

- Widest polarity range
- Faster than micropacked
- Water tolerant

Reduce run time by replacing your packed columns with ValcoPLOT HayeSep capillary PLOT columns, with phases available only from VICI. Our proprietary phase processing produces the first capillary PLOT columns with characteristics identical to HayeSep packed columns.

### VALCOBOND PHASES

pages 236-238

<b>VB-FLUORO</b>	Bonded fluorosilicone phase
<b>VB-1</b>	100% dimethylpolysiloxane
<b>VB-5</b>	(5%-Phenyl)-methylpolysiloxane
<b>VB-35</b>	(35%-Phenyl)-methylpolysiloxane
<b>VB-50/608</b>	(50%-Phenyl)-methylpolysiloxane
<b>VB-624</b>	(6% Cyanopropyl-phenyl)-methylpolysiloxane
<b>VB-1701</b>	(14% Cyanopropyl-phenyl)-methylpolysiloxane
<b>VB-Wax</b>	Polyethylene glycol (PEG)



### VALCO PLOT PHASES

pages 240-244

<b>ValcoPLOT Molesieve 5Å</b>	<b>ValcoPLOT A</b>	High purity Divinylbenzene/ethyleneglycoldimethacrylate
<b>ValcoPLOT Metal Molesieve 5Å</b>	<b>ValcoPLOT B</b>	Divinylbenzene/polyethyleneimine
<b>ValcoPLOT Alumina KCl</b>	<b>ValcoPLOT C</b>	Divinylbenzene/acrylonitrile
<b>ValcoPLOT Alumina Na<sub>2</sub>So<sub>4</sub></b>	<b>ValcoPLOT D</b>	High purity Divinylbenzene
	<b>ValcoPLOT N</b>	Divinylbenzene/ethyleneglycoldimethacrylate
	<b>ValcoPLOT P</b>	Divinylbenzene/styrene
	<b>ValcoPLOT Q</b>	Divinylbenzene
	<b>ValcoPLOT R</b>	Divinylbenzene/N-vinyl-2-pyrrolidinone
	<b>ValcoPLOT S</b>	Divinylbenzene/4-vinyl-pyridine

### PRODUCTS FOR GC

Other useful products for gas chromatography include:

1/32" ultra low mass external unions . . .	p 19
FS adapter ferrules .	16-17
GC Detectors . . . . .	221-223, 227
Injection valves . . . . .	104-113
Stream selectors . . . . .	124-135
Gas purifiers . . . . .	246-247
Helium and nitrogen purifiers . . . . .	226-227
Inlet discs (injector nuts for HP 6890 and 5890 . . .	18
Reduced breakdown injection port liners . . . . .	245

### TO ORDER

For prices or more information about your specific application, contact VICI Metronics:

Toll-free 877-737-1887  
Tel . . . . . 360-697-9199  
Fax . . . . . 360-697-6682

[columns@vici.com](mailto:columns@vici.com)



**PRIMARY APPLICATIONS**

Aldehydes  
CFCs  
Explosives  
Ketones  
PAHs  
Silanes  
Unsaturated compounds

**VB-Fluoro Capillary Columns**

- 100% bonded Fluorosilicone
- High thermal stability
- Unique selectivity

VB-Fluoro capillary columns feature unique selectivity created by high fluorine affinity to analyte lone pair electrons. This is coupled with thermal stability similar to low polarity phases such VB-1 and VB-5.

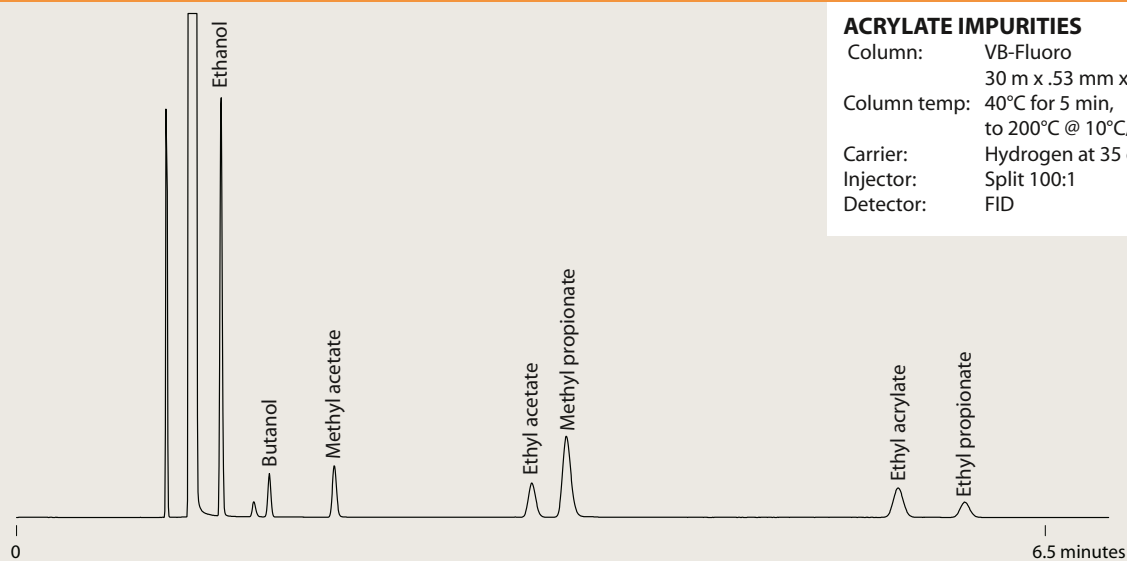
Low bleed characteristics make VB-Fluoro columns well suited for MS and ECD applications, and the high thermal stability allows their use as a complementary column for most high temperature applications which commonly utilize low polarity stationary phases.

Primary applications include ketones, aldehydes, explosives, PAHs, silanes, CFCs, and unsaturated compounds.

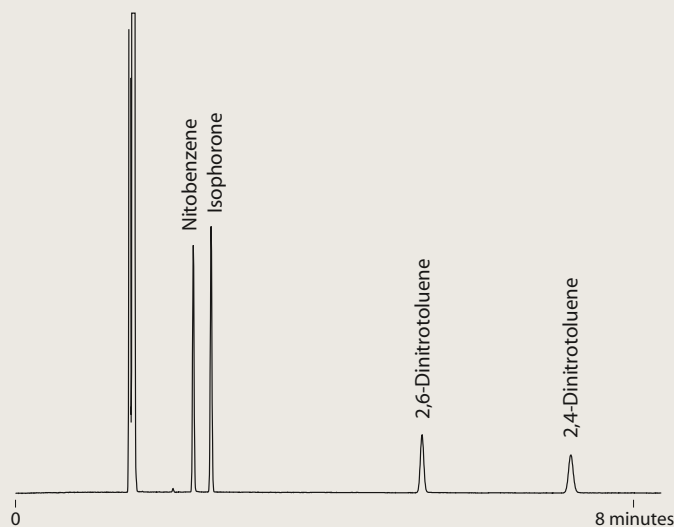
VB-Fluoro columns are a good replacement for Rtx-200, DB-200, DB-210, and VF-200 columns.

**VB-Fluoro**

0.25 mm ID	df	Prod No
30 meters	0.25	CFS-N03025-025
0.53 mm ID		
30 meters	1.00	CFS-N03053-100

**VB-Fluoro****ACRYLATE IMPURITIES**

Column: VB-Fluoro  
30 m x .53 mm x 1.00  $\mu$ m  
Column temp: 40°C for 5 min,  
to 200°C @ 10°C/min  
Carrier: Hydrogen at 35 cm/sec  
Injector: Split 100:1  
Detector: FID

**VB-Fluoro****EXPLOSIVES**

Column: VB-Fluoro  
30 m x .53 mm x 1.00  $\mu$ m  
Column temp: Isothermal 200°C  
Carrier: Hydrogen at 35 cm/sec  
Injector: Split 100:1  
Detector: FID

GC CAPILLARY COLUMNS

**VB-1**

*100% dimethylpolysiloxane*

**REPLACES**

DB-1, DB-1ms, HP-1, HP-1MS, Ultra-1, Rtx-1, Rtx-1MS, SPB-1, MDN-1, BP-1, CP-Sil 5 CB, GB-1, 007-1, OV-1, SE-30, AT-1 and ZB-1

<b>0.10 mm ID</b>	<i>df</i>	<i>Prod No</i>
10 meters	0.10	CFS-A01010-010B
10 meters	0.20	CFS-A01010-020B
10 meters	0.40	CFS-A01010-040B
20 meters	0.10	CFS-A02010-010B
20 meters	0.20	CFS-A02010-020B
20 meters	0.40	CFS-A02010-040B
<b>0.18 mm ID</b>	<i>df</i>	<i>Prod No</i>
10 meters	0.10	CFS-A01018-010B
10 meters	0.18	CFS-A01018-018B
10 meters	0.40	CFS-A01018-040B
30 meters	0.10	CFS-A03018-010B
30 meters	0.18	CFS-A03018-018B
30 meters	0.40	CFS-A03018-040B
30 meters	1.00	CFS-A03018-100B
40 meters	0.18	CFS-A04018-018B
40 meters	0.40	CFS-A04018-040B
<b>0.25 mm ID</b>	<i>df</i>	<i>Prod No</i>
15 meters	0.10	CFS-A01525-010B
15 meters	0.25	CFS-A01525-025B
15 meters	0.50	CFS-A01525-050B
15 meters	1.00	CFS-A01525-100B
15 meters	1.50	CFS-A01525-150B
30 meters	0.10	CFS-A03025-010B
30 meters	0.25	CFS-A03025-025B
30 meters	0.50	CFS-A03025-050B
30 meters	1.00	CFS-A03025-100B
30 meters	1.50	CFS-A03025-150B
60 meters	0.10	CFS-A06025-010B
60 meters	0.25	CFS-A06025-025B
60 meters	0.50	CFS-A06025-050B
60 meters	1.00	CFS-A06025-100B
60 meters	1.50	CFS-A06025-150B
<b>0.32 mm ID</b>	<i>df</i>	<i>Prod No</i>
15 meters	0.10	CFS-A01532-010B
15 meters	0.25	CFS-A01532-025B
15 meters	0.32	CFS-A01532-032B
15 meters	0.50	CFS-A01532-050B
15 meters	1.00	CFS-A01532-100B

<b>0.32 mm ID, cont'd</b>	<i>df</i>	<i>Prod No</i>
15 meters	2.00	CFS-A01532-200B
15 meters	3.00	CFS-A01532-300B
15 meters	4.00	CFS-A01532-400B
15 meters	5.00	CFS-A01532-500B
30 meters	0.10	CFS-A03032-010B
30 meters	0.25	CFS-A03032-025B
30 meters	0.32	CFS-A03032-032B
30 meters	0.50	CFS-A03032-050B
30 meters	1.00	CFS-A03032-100B
30 meters	2.00	CFS-A03032-200B
30 meters	3.00	CFS-A03032-300B
30 meters	4.00	CFS-A03032-400B
30 meters	5.00	CFS-A03032-500B
60 meters	0.10	CFS-A06032-010B
60 meters	0.25	CFS-A06032-025B
60 meters	0.32	CFS-A06032-032B
60 meters	0.50	CFS-A06032-050B
60 meters	1.00	CFS-A06032-100B
60 meters	2.00	CFS-A06032-200B
60 meters	3.00	CFS-A06032-300B
60 meters	4.00	CFS-A06032-400B
60 meters	5.00	CFS-A06032-500B
<b>0.53 mm ID</b>	<i>df</i>	<i>Prod No</i>
15 meters	0.15	CFS-A01553-015B
15 meters	0.50	CFS-A01553-050B
15 meters	1.00	CFS-A01553-100B
15 meters	1.50	CFS-A01553-150B
15 meters	3.00	CFS-A01553-300B
15 meters	5.00	CFS-A01553-500B
30 meters	0.15	CFS-A03053-015B
30 meters	0.50	CFS-A03053-050B
30 meters	1.00	CFS-A03053-100B
30 meters	1.50	CFS-A03053-150B
30 meters	3.00	CFS-A03053-300B
30 meters	5.00	CFS-A03053-500B
60 meters	1.00	CFS-A06053-100B
60 meters	1.50	CFS-A06053-150B
60 meters	3.00	CFS-A06053-300B
60 meters	5.00	CFS-A06053-500B

**PRIMARY APPLICATIONS**

Amines  
Flavors  
Fragrances  
Hydrocarbons  
Pesticides  
PCBs  
Phenols  
Sulfur compounds  
EPA Methods  
504, 551, 1618  
NIOSH Methods  
1300-1301,  
1400-1403,  
1450, 1501, 2005

**VB-35**

*(35%Phenyl)-methylpolysiloxane*

**REPLACES**

DB-35, AT-35, MDN-35, DB-35ms, Rtx-35, BP-35, HP-35, Rtx-35MS, 007-11, HP-35MS, Sup-Herb, ZB-35

<b>0.25 mm ID</b>	<i>df</i>	<i>Prod No</i>
15 meters	0.25	CFS-C01525-025B
15 meters	0.50	CFS-C01525-050B
30 meters	0.25	CFS-C03025-025B
30 meters	0.50	CFS-C03025-050B
60 meters	0.25	CFS-C06025-025B
60 meters	0.50	CFS-C06025-050B
<b>0.32 mm ID</b>	<i>df</i>	<i>Prod No</i>
15 meters	0.25	CFS-C01532-025B
15 meters	0.50	CFS-C01532-050B
30 meters	0.25	CFS-C03032-025B
30 meters	0.50	CFS-C03032-050B

<b>0.32 mm ID, cont'd</b>	<i>df</i>	<i>Prod No</i>
60 meters	0.25	CFS-C06032-025B
60 meters	0.50	CFS-C06032-050B
<b>0.53 mm ID</b>	<i>df</i>	<i>Prod No</i>
15 meters	0.50	CFS-C01553-050B
15 meters	1.00	CFS-C01553-100B
30 meters	0.50	CFS-C03053-050B
30 meters	1.00	CFS-C03053-100B
60 meters	0.50	CFS-C06053-050B
60 meters	1.00	CFS-C06053-100B

**PRIMARY APPLICATIONS**

Drugs  
Pesticides  
Herbicides  
PAHs  
Pharmaceuticals  
PCBs  
EPA Method 8081A  
(organochlorine pesticides)

**TO ORDER**

Toll-free 877-737-1887  
Tel . . . . .360-697-9199  
Fax . . . . .360-697-6682

[columns@vici.com](mailto:columns@vici.com)

## VB-5

(5% Phenyl)-methylpolysiloxane

## PRIMARY APPLICATIONS

Drugs  
Herbicides  
Hydrocarbons  
PCBs  
Pesticides  
Phenols  
Semi-volatiles  
Sulfur compounds

0.10 mm ID	df	Prod No
10 meters	0.10	CFS-B01010-010B
10 meters	0.20	CFS-B01010-020B
20 meters	0.10	CFS-B02010-010B
20 meters	0.20	CFS-B02010-020B
0.18 mm ID	df	Prod No
10 meters	0.18	CFS-B01018-018B
10 meters	0.40	CFS-B01018-040B
20 meters	0.18	CFS-B02018-018B
20 meters	0.40	CFS-B02018-040B
30 meters	0.18	CFS-B03018-018B
30 meters	0.40	CFS-B03018-040B
40 meters	0.18	CFS-B04018-018B
40 meters	0.40	CFS-B04018-040B
0.25 mm ID	df	Prod No
15 meters	0.10	CFS-B01525-010B
15 meters	0.25	CFS-B01525-025B
15 meters	0.50	CFS-B01525-050B
15 meters	1.00	CFS-B01525-100B
30 meters	0.10	CFS-B03025-010B
30 meters	0.25	CFS-B03025-025B
30 meters	0.50	CFS-B03025-050B
30 meters	1.00	CFS-B03025-100B
60 meters	0.10	CFS-B06025-010B
60 meters	0.25	CFS-B06025-025B
60 meters	0.50	CFS-B06025-050B
60 meters	1.00	CFS-B06025-100B
0.32 mm ID	df	Prod No
15 meters	0.10	CFS-B01532-010B
15 meters	0.25	CFS-B01532-025B
15 meters	0.50	CFS-B01532-050B
15 meters	1.00	CFS-B01532-100B
15 meters	2.00	CFS-B01532-200B
15 meters	3.00	CFS-B01532-300B
15 meters	5.00	CFS-B01532-500B

0.32 mm ID, cont'd	Prod No	
30 meters	0.10	CFS-B03032-010B
30 meters	0.25	CFS-B03032-025B
30 meters	0.50	CFS-B03032-050B
30 meters	1.00	CFS-B03032-100B
30 meters	2.00	CFS-B03032-200B
30 meters	3.00	CFS-B03032-300B
30 meters	5.00	CFS-B03032-500B
0.53 mm ID	df	Prod No
15 meters	0.50	CFS-B01553-050B
15 meters	1.00	CFS-B01553-100B
15 meters	1.50	CFS-B01553-150B
15 meters	2.00	CFS-B01553-200B
15 meters	2.65	CFS-B01553-265B
15 meters	3.00	CFS-B01553-300B
15 meters	5.00	CFS-B01553-500B
30 meters	0.50	CFS-B03053-050B
30 meters	1.00	CFS-B03053-100B
30 meters	1.50	CFS-B03053-150B
30 meters	2.65	CFS-B03053-265B
30 meters	3.00	CFS-B03053-300B
30 meters	5.00	CFS-B03053-500B
60 meters	1.00	CFS-B06053-100B
60 meters	1.50	CFS-B06053-150B
60 meters	2.00	CFS-B06053-200B
60 meters	2.65	CFS-B06053-265B
60 meters	3.00	CFS-B06053-300B
60 meters	5.00	CFS-B06053-500B

## REPLACES

DB-5, DB-5ms,  
HP-5, HP-5MS,  
Ultra-5, Rtx-5, Rtx-  
5MS, Rtx-5sil MS,  
SPB-5, MDN-5,  
BP-5, CP-Sil 8 CB,  
GB-5, 007-5, OV-5,  
SE-54, AT-5, and  
ZB-5

## VB-50/608

(50%Phenyl)-methylpolysiloxane

## PRIMARY APPLICATIONS

Drugs  
Pharmaceuticals  
Herbicides  
Steroids  
PAHs  
Tocopherols  
PCBs  
EPA Methods  
Pesticides  
508, 608 and 8080

0.25 mm ID	df	Prod No
15 meters	0.25	CFS-D01525-025B
15 meters	0.50	CFS-D01525-050B
30 meters	0.15	CFS-D03025-015B
30 meters	0.25	CFS-D03025-025B
30 meters	0.50	CFS-D03025-050B
60 meters	0.25	CFS-D06025-025B
60 meters	0.50	CFS-D06025-050B
0.32 mm ID	df	Prod No
15 meters	0.25	CFS-D01532-025B
15 meters	0.50	CFS-D01532-050B
15 meters	1.00	CFS-D01532-100B
30 meters	0.25	CFS-D03032-025B
30 meters	0.50	CFS-D03032-050B
30 meters	1.00	CFS-D03032-100B

0.32 mm ID, cont'd	Prod No	
60 meters	0.25	CFS-D06032-025B
60 meters	0.50	CFS-D06032-050B
60 meters	1.00	CFS-D06032-100B
0.53 mm ID	df	Prod No
15 meters	0.50	CFS-D01553-050B
15 meters	0.83	CFS-D01553-083B
15 meters	1.00	CFS-D01553-100B
30 meters	0.50	CFS-D03053-050B
30 meters	0.83	CFS-D03053-083B
30 meters	1.00	CFS-D03053-100B
60 meters	0.50	CFS-D06053-050B
60 meters	0.83	CFS-D06053-083B
60 meters	1.00	CFS-D06053-100B

## REPLACES

DB-17, AT-50,  
SP-2250, DB-17ms,  
BPX-50, SP-17,  
DB-608, 007-17,  
SPB-608, HP-50+,  
SPB-50, ZB-50,  
Rtx-50

GC CAPILLARY COLUMNS

**VB-Wax**

*100% bonded polyethylene glycol*

**REPLACES**

DB-WAX, DB-WAXetr, HP-WAX, HP-InnoWAX, HP-20M, CB-WAX, Stabilwax, RtxWAX, SUPEROX II, SUPELCOWAX-10, BP-20, CP-WAX, 52 CB, GB-WAX, 007-CW, OV-WAX, AT-WAX, and ZB-WAX

0.10 mm ID	df	Prod No
10 meters	0.10	CFS-G01010-010A
20 meters	0.10	CFS-G02010-010A
0.18 mm ID	df	Prod No
10 meters	0.18	CFS-G01018-018A
20 meters	0.18	CFS-G02018-018A
0.25 mm ID	df	Prod No
15 meters	0.25	CFS-G01525-025A
30 meters	0.25	CFS-G03025-025A
60 meters	0.25	CFS-G06025-025A

0.32 mm ID	df	Prod No
15 meters	0.25	CFS-G01532-025A
15 meters	0.50	CFS-G01532-050A
15 meters	1.00	CFS-G01532-100A
30 meters	0.25	CFS-G03032-025A
30 meters	0.50	CFS-G03032-050A
30 meters	1.00	CFS-G03032-100A
60 meters	0.25	CFS-G06032-025A
60 meters	0.50	CFS-G06032-050A
0.53 mm ID	df	Prod No
15 meters	0.50	CFS-G01553-050A
15 meters	1.00	CFS-G01553-100A
30 meters	0.50	CFS-G03053-050A
30 meters	1.00	CFS-G03053-100A
60 meters	1.00	CFS-G06053-100A

**PRIMARY APPLICATIONS**

Alcohols  
Aldehydes  
Aromatics  
Flavors  
Fragrances  
Organic Acids  
Solvents

**VB-624/1301**

*(6% Cyanopropyl-phenyl)-methylpolysiloxane*

**REPLACES**

DB-624, HP-624, HP-VOC, Rtx-624, Rtx-Volatiles, BP-624, Vocol, 007-624, 007-502, NON-PAKD, 624, ZB-624

0.18 mm ID	df	Prod No
10 meters	1.00	CFS-E01018-100A
20 meters	1.00	CFS-E02018-100A
30 meters	1.00	CFS-E03018-100A
40 meters	1.00	CFS-E04018-100A
0.20 mm ID	df	Prod No
25 meters	1.12	CFS-E02520-112A
0.25 mm ID	df	Prod No
15 meters	1.40	CFS-E01525-140A
30 meters	1.40	CFS-E03025-140A
60 meters	1.40	CFS-E06025-140A

0.32 mm ID	df	Prod No
15 meters	1.80	CFS-E01532-180A
30 meters	1.80	CFS-E03032-180A
60 meters	1.80	CFS-E06032-180A
0.53 mm ID	df	Prod No
15 meters	3.00	CFS-E01553-300A
30 meters	3.00	CFS-E03053-300A
60 meters	3.00	CFS-E06053-300A
75 meters	3.00	CFS-E07553-300A

**PRIMARY APPLICATIONS**

EPA Methods  
501.3  
502.2  
503.1  
524.2  
601  
602  
8010  
8015  
8020  
8240

**VB-1701**

*(14% Cyanopropyl-phenyl)-methylpolysiloxane*

**REPLACES**

DB-1701, 007-1701, HP-1701, CP-Sil 19 CB, Rtx-1701, SPB-1701, BP-10, ZB-1701

0.25 mm ID	df	Prod No
15 meters	0.25	CFS-F01525-025A
15 meters	0.50	CFS-F01525-050A
30 meters	0.25	CFS-F03025-025A
30 meters	0.50	CFS-F03025-050A
60 meters	0.25	CFS-F06025-025A
60 meters	0.50	CFS-F06025-050A
0.32 mm ID	df	Prod No
15 meters	0.25	CFS-F01532-025A
15 meters	0.50	CFS-F01532-050A
15 meters	1.00	CFS-F01532-100A
30 meters	0.25	CFS-F03032-025A
30 meters	0.50	CFS-F03032-050A
30 meters	1.00	CFS-F03032-100A

0.32 mm ID, cont'd	df	Prod No
60 meters	0.25	CFS-F06032-025A
60 meters	0.50	CFS-F06032-050A
60 meters	1.00	CFS-F06032-100A
0.53 mm ID	df	Prod No
15 meters	0.50	CFS-F01553-050A
15 meters	1.00	CFS-F01553-100A
30 meters	0.50	CFS-F03053-050A
30 meters	1.00	CFS-F03053-100A
60 meters	0.50	CFS-F06053-050A
60 meters	1.00	CFS-F06053-100A

**PRIMARY APPLICATIONS**

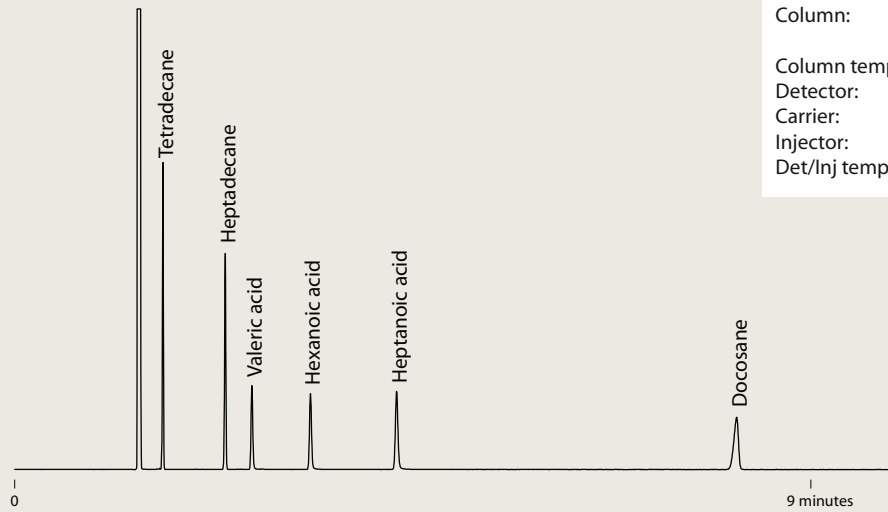
Drugs  
PAHs  
PCBs  
Pesticides  
Phenols  
Solvents  
Tranquilizers

**TO ORDER**

Toll-free 877-737-1887  
Tel . . . . .360-697-9199  
Fax . . . . .360-697-6682

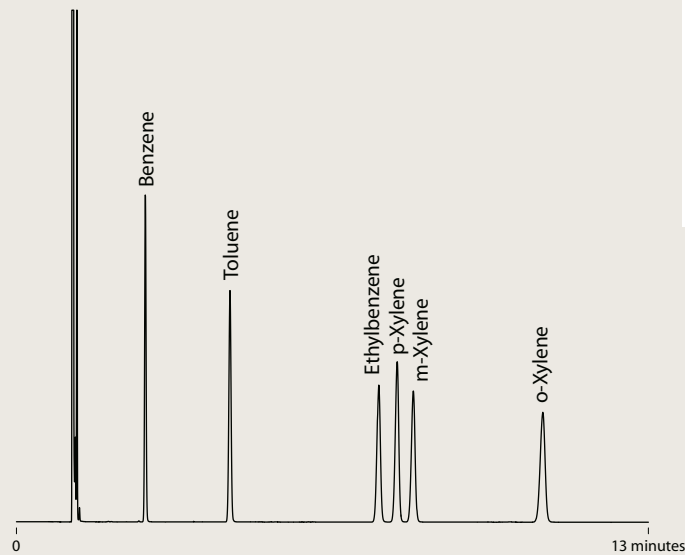
[columns@vici.com](mailto:columns@vici.com)

## VB-Wax

**FREE FATTY ACIDS**

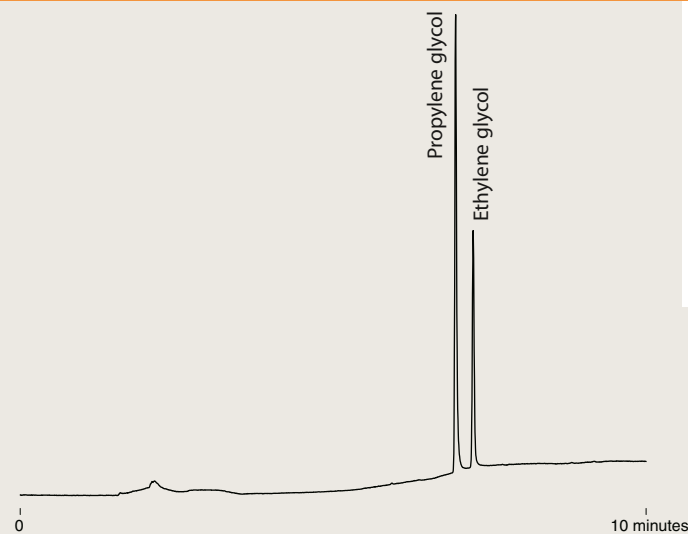
Column: VB-Wax  
 30m x .25mm x .25 $\mu$ m  
 Column temp: 170°C isothermal  
 Detector: FID  
 Carrier: Hydrogen at 40 cm/sec  
 Injector: Split 100:1  
 Det/Inj temp: 220°C

## VB-Wax

**BTEX**

Column: VB-Wax  
 30m x .25mm x .25 $\mu$ m  
 Column temp: 40°C isothermal  
 Detector: FID  
 Carrier: Hydrogen  
 Injector: .5  $\mu$ l 100:1 split  
 Det/Inj temp: 220°C

## VB-Wax

**GLYCOLS**

Sample: 50 ppm EG, PG  
 Column: VB-Wax  
 30m x .53mm x 1.00 $\mu$ m  
 Column temp: 80°C for 1 min,  
 to 200°C @ 20°C/min,  
 hold 5 min  
 Detector: FID  
 Carrier: Helium at 5 psi  
 Injector: 1  $\mu$ l splitless, .5 min  
 Det/Inj temp: 220°C

GC CAPILLARY COLUMNS

Molesieve 5Å

Molesieve 5Å

REPLACES

- GS-Molesieve 5A
- HP-PLOT Molesieve
- CP-Molesieve 5A
- Rt-Msieive-5A
- MXT-Msieive-51
- PLT-5A

ValcoPLOT Molesieve 5Å PLOT columns offer greatly enhanced analytical efficiency at economical prices. Our proprietary bonding technology ensures that the particles stay put even when columns are used with valves. Our thick film columns separate Ar/O<sub>2</sub> without the need for cryogenic equipment. The thin film columns offer fast elution of carbon monoxide with near perfect peak symmetry.

**PRIMARY APPLICATIONS**  
Gases

**TO ORDER**

For prices or more information about your specific application, contact VICI Metronics:

Toll-free 877-737-1887  
Tel .....360-697-9199  
Fax .....360-697-6682

[columns@vici.com](mailto:columns@vici.com)

**Fused silica**

0.53 mm ID	df	Prod No
15 meters	20	CFS-X1553-200
15 meters	50	CFS-X1553-500
30 meters	20	CFS-X3053-200
30 meters	50	CFS-X3053-500

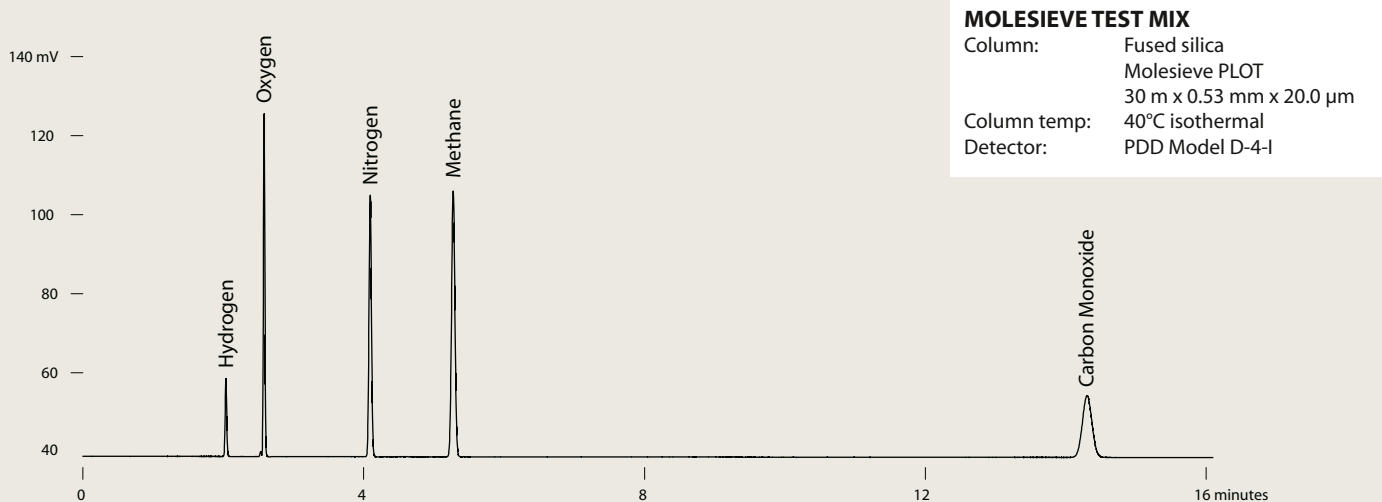
**Stainless steel**

0.53 mm ID	df (µm)	Prod No
15 meters	20	CSS-X1553-200
30 meters	20	CSS-X3053-200
30 meters	50	CSS-X3053-500

ValcoPLOT Molesieve 5Å – Stainless steel



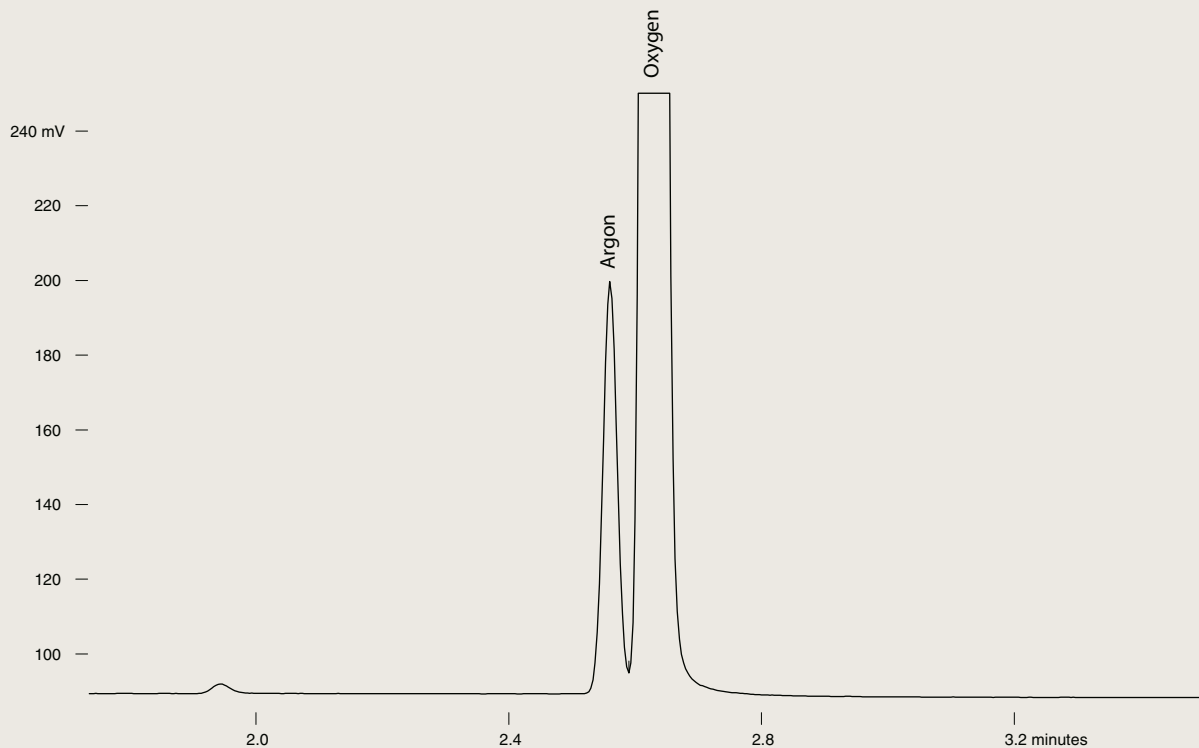
ValcoPLOT Molesieve 5Å – Fused silica



ValcoPLOT Molesieve 5Å – Fused silica

**AIR**

Column: Fused silica  
 Molesieve PLOT  
 30 m x 0.53 mm x 50.0 μm  
 Column temp: 40°C isothermal  
 Detector: PDD Model D-4-I  
 Carrier: Helium @ 25cm/sec





GC CAPILLARY COLUMNS

Alumina

Aluminum oxide

REPLACES

GS-Alumina  
 HP-PLOT Al2O3  
 CP-Al2O3/KCl  
 CP-Al2O3/Na2SO4  
 Rt-alumina-PLOT  
 Al2O3/KCl  
 Al2O3/Na2SO4

With ValcoPLOT Al<sub>2</sub>O<sub>3</sub> PLOT columns there's no need for cryogenic equipment to analyze C1 - C5 hydrocarbons in a main stream of C1 - C5 hydrocarbons. ValcoPLOT Al<sub>2</sub>O<sub>3</sub> columns are deactivated with small salt crystals stable to 200°C. KCl deactivation produces a relatively apolar column while Na<sub>2</sub>SO<sub>4</sub> produces columns exhibiting increased retention of unsaturated hydrocarbons.

PRIMARY APPLICATIONS

C1 - C5 hydrocarbons

VP-Alumina/KCl

VP-Alumina/Na2SO4

Fused silica

0.53 mm ID	df	Prod No
15 meters	10	CFS-Y1553-100
30 meters	10	CFS-Y3053-100
50 meters	10	CFS-Y5053-100

Fused silica

0.53 mm ID	df	Prod No
15 meters	10	CFS-Z1553-100
30 meters	10	CFS-Z3053-100
50 meters	10	CFS-Z5053-100

ValcoPLOT A

High purity Divinylbenzene/ethyleneglycoldimethacrylate

Fused silica

0.32 mm ID	df (µm)	Prod No
15 meters	10	CFS-PA1532-100
30 meters	10	CFS-PA3032-100

0.53 mm ID	df	Prod No
15 meters	20	CFS-PA1553-200
30 meters	30	CFS-PA3053-200

PRIMARY APPLICATIONS

Solvents  
 Light gases  
 Light hydrocarbons  
 Residual solvents

ValcoPLOT D

High purity Divinylbenzene

Fused silica

0.32 mm ID	df	Prod No
15 meters	10	CFS-PD1532-100
30 meters	10	CFS-PD3032-100

0.53 mm ID	df	Prod No
15 meters	20	CFS-PD1553-200
30 meters	20	CFS-PD3053-200

PRIMARY APPLICATIONS

Solvents  
 Hydrocarbons  
 Alcohols  
 Sulfur compounds  
 Residual solvents  
 Halogenated hydrocarbons

ValcoPLOT Q

Divinylbenzene

Fused silica

0.32 mm ID	df	Prod No
15 meters	10	CFS-PQ1532-100
30 meters	10	CFS-PQ3032-100

0.53 mm ID	df	Prod No
15 meters	20	CFS-PQ1553-200
30 meters	20	CFS-PQ3053-200

PRIMARY APPLICATIONS

Note: We highly recommend ValcoPLOT D, which has similar retention characteristics but is made from higher purity raw materials.

TO ORDER

Toll-free 877-737-1887  
 Tel .....360-697-9199  
 Fax .....360-697-6682

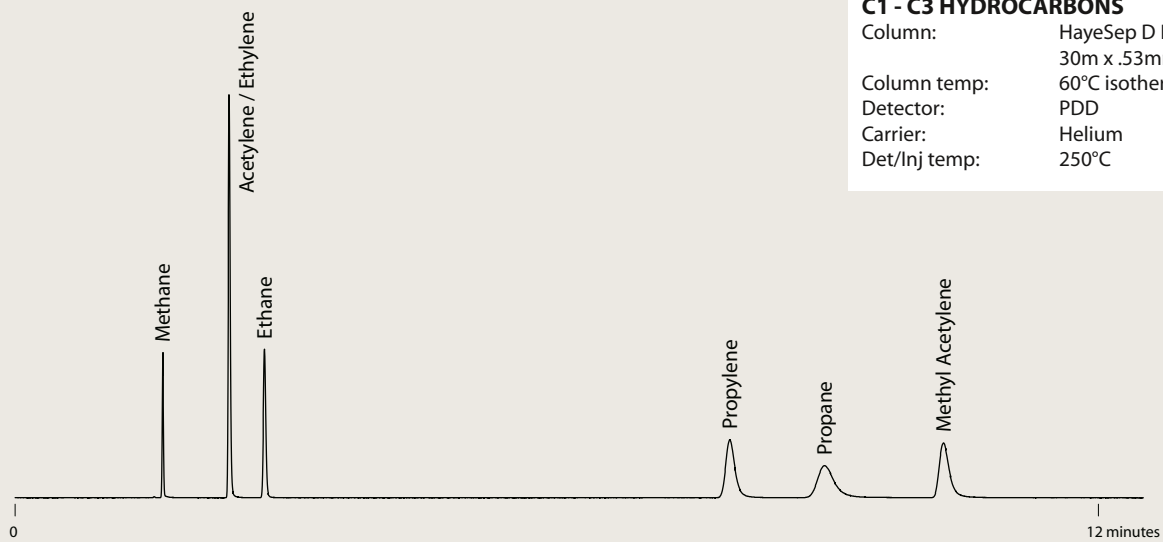
columns@vici.com

## ValcoPLOT A

**C1 - C3 HYDROCARBONS**

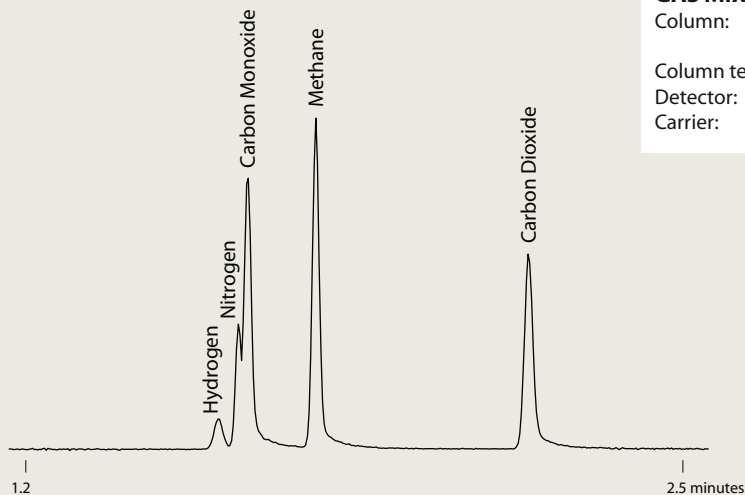
Column: HayeSep A PLOT  
 30m x .53mm x 20.0µm  
 Column temp: 60°C isothermal  
 Detector: PDD  
 Carrier: Helium  
 Det/Inj temp: 165°C

## ValcoPLOT D

**C1 - C3 HYDROCARBONS**

Column: HayeSep D PLOT  
 30m x .53mm x 20.0µm  
 Column temp: 60°C isothermal  
 Detector: PDD  
 Carrier: Helium  
 Det/Inj temp: 250°C

## ValcoPLOT D

**GAS MIXTURE**

Column: HayeSep D PLOT  
 30m x .53mm x 20.0µm  
 Column temp: 40°C isothermal  
 Detector: PDD  
 Carrier: Helium

**ValcoPLOT B***Divinylbenzene/polyethyleneimine***Fused silica**

<b>0.32 mm ID</b>	<i>df</i>	<i>Prod No</i>	<b>0.53 mm ID</b>	<i>df</i>	<i>Prod No</i>
15 meters	10	CFS-PB1532-100	15 meters	20	CFS-PB1553-200
30 meters	10	CFS-PB3032-100	30 meters	20	CFS-PB3053-200

**ValcoPLOT C***Divinylbenzene/acrylonitrile***Fused silica**

<b>0.32 mm ID</b>	<i>df</i>	<i>Prod No</i>	<b>0.53 mm ID</b>	<i>df</i>	<i>Prod No</i>
15 meters	10	CFS-PC1532-100	15 meters	20	CFS-PC1553-200
30 meters	10	CFS-PC3032-100	30 meters	20	CFS-PC3053-200

**ValcoPLOT N***Divinylbenzene/ethyleneglycoldimethacrylate***Fused silica**

<b>0.32 mm ID</b>	<i>df</i>	<i>Prod No</i>	<b>0.53 mm ID</b>	<i>df</i>	<i>Prod No</i>
15 meters	10	CFS-PN1532-100	15 meters	20	CFS-PN1553-200
30 meters	10	CFS-PN3032-100	30 meters	20	CFS-PN3053-200

**ValcoPLOT P***Divinylbenzene/styrene***Fused silica**

<b>0.32 mm ID</b>	<i>df</i>	<i>Prod No</i>	<b>0.53 mm ID</b>	<i>df</i>	<i>Prod No</i>
15 meters	10	CFS-PP1532-100	15 meters	20	CFS-PP1553-200
30 meters	10	CFS-PP3032-100	30 meters	20	CFS-PP3053-200

**ValcoPLOT R***Divinylbenzene/N-vinyl-2-pyrrolidinone***Fused silica**

<b>0.32 mm ID</b>	<i>df</i>	<i>Prod No</i>	<b>0.53 mm ID</b>	<i>df</i>	<i>Prod No</i>
15 meters	10	CFS-PR1532-100	15 meters	20	CFS-PR1553-200
30 meters	10	CFS-PR3032-100	30 meters	20	CFS-PR3053-200

**ValcoPLOT S***Divinylbenzene/4-vinyl-pyridine***Fused silica**

<b>0.32 mm ID</b>	<i>df</i>	<i>Prod No</i>	<b>0.53 mm ID</b>	<i>df</i>	<i>Prod No</i>
15 meters	10	CFS-PS1532-100	15 meters	20	CFS-PS1553-200
30 meters	10	CFS-PS3032-100	30 meters	20	CFS-PS3053-200

**TO ORDER**

For prices or more information about your specific application, contact VICI Metronics:

Toll-free 877-737-1887  
Tel .....360-697-9199  
Fax .....360-697-6682

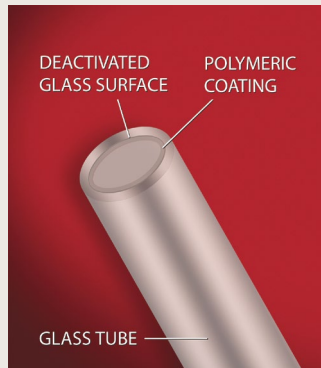
**columns@vici.com**



- Reduce breakdown of Endrin and DDT
- Increase the interval between liner changes

DDT and Endrin are easily degraded in the injection port; with non-deactivated liners and those filled with non-deactivated glass wool, Endrin breakdown can be as high as 98%. EPA method 8081A states, "If degradation of either DDT or Endrin exceeds 15%, take corrective action before proceeding with calibration."

VICI reduced breakdown liners are produced by applying a highly-crosslinked siloxane over a conventionally deactivated liner. The resulting liner contributes less to breakdown than any other component of the injection system.



### Reduced breakdown injection port liners

Package of 5 liners.

For injector	Description	Prod No
Agilent/Thermo	2 mm straight splitless	LNR-HP2-5
	4 mm straight splitless	LNR-HP4-5
	2 mm gooseneck	LNR-GS2-5
	4 mm gooseneck	LNR-GS4-5
	4 mm double gooseneck	LNR-DGS4-5
Gerstel CIS-4/PTV	Baffled	LNR-CIS4-B-5
Varian CP-1177	2 mm gooseneck	LNR-GS2-5
	4 mm gooseneck	LNR-GS4-5
Varian 1078/1079	2 mm gooseneck	LNR-VARGS2-5
	3.4 mm gooseneck	LNR-VAR3.4-5

