



Chromatography Supplies
Catalog

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you today?

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About GCFerrules.com

GCFerrules.com is located in Orem, Utah. We have supplied OEM GC consumables for over 20 years and strive to provide the best products at the best prices.

We have noticed over the years that many large chromatography companies have kept raising their prices higher and higher and don't really care about the end user or their distributors.

We started GCFerrules.com to make it easy for you to buy ferrules & other GC consumables. We take out the stress of you dealing with the large chromatography companies. We are here to help you in any way possible. If you have any questions or feedback for us, please contact us at info@GCFerrules.com.

Distributors will receive a discount off of the list price shown on the website. Please contact us at distributors@gcferrules.com to receive a promo code to get distributor pricing on the website, or we can email you an excel sheet with pricing.

GC Injector Liners

- ♦ Bruker
- ♦ Varian
- ♦ Agilent (HP) Compatible
- ♦ Perkin Elmer

Deactivated Split/Splitless Injector Liners

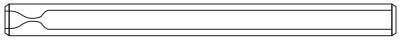
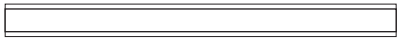
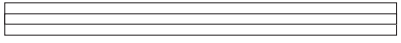
We offer a full line of Split/Splitless and SPI Injector Liners that allow flexibility in analyzing different sample types. A regular schedule of inlet liner replacement will help prevent adsorption problems that can otherwise drastically affect your analysis. All liners are deactivated to meet high performance standards. Each liner is wrapped in ultra clean foil to assure cleanliness from our manufacturing to your laboratory, this is an industry exclusive.

Varian/Bruker GC Deactivated Inlet Liners

CP-1177 Split/Splitless Glass Liners

- Made with a Consistent, High Quality Proprietary Deactivation Process
- Ultra Clean Foil Wrapped Liners- An Industry Exclusive
- Packaged in Ultra Clean, White Non-Plastic Fluted Trays
- Consistent dimensions, tolerances and quality



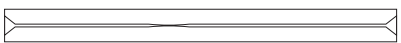
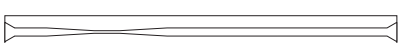
	Description	Qty	Part#	Price \$
	Gooseneck Split/Splitless 4mm w/ deactivated glass wool	5/pk 25/pk	392611936 392611936-25	-
	4mm Split w/ deactivated glass wool	5/pk 25/pk	392611937 392611937-25	-
	2mm Splitless w/ deactivated glass wool	5/pk 25/pk	392611938 392611938-25	-
	Gooseneck Split/Splitless 4mm	5/pk 25/pk	392611927 392611927-25	-
	4mm Split/Splitless	5/pk 25/pk	392611925 392611925-25	-
	2mm Splitless	5/pk 25/pk	392611924 392611924-25	-
	Graphite O-Rings, 6.5mm ID to fit CP-1177 injector glass liners	5/pk 25/pk	392611940-5 392611940-25	-

Varian/Bruker GC Deactivated Inlet Liners

1093/1094 SPI Glass Liners

- Consistent dimensions, tolerances and quality
- Each Liner is deactivated to assure a clean, inert glass surface
- Packaged in Ultra Clean, White Non-Plastic Fluted Trays
- Ultra Clean Foil Wrapped Liners- An Industry Exclusive



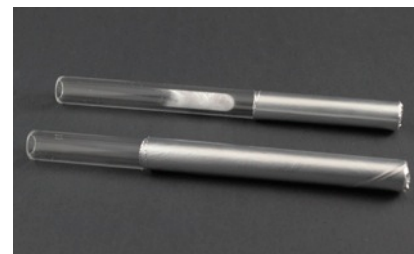
	Description	Old Varian Liner #	Qty	Part#	Price \$
	High linearity for 0.25 mm and 0.32 mm ID columns	03-918332-01	5/pk 25/pk	190010906 190010906-25	-
	High linearity for 0.53 mm ID columns	03-918332-02	5/pk 25/pk	190010907 190010907-25	-
	Packed deactivated glass wool (0.8 mm ID) Injection Volumes	03-918332-03	5/pk 25/pk	392611950 392611950-25	-
	With buffer, injection volumes > 1 uL	01-900109-08	5/pk 25/pk	190010908 190010908-25	-

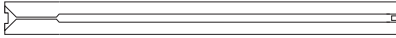
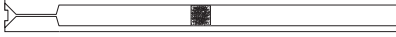
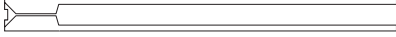
GC Injector Liners

Varian/Bruker GC Deactivated Inlet Liners

1075/1077 Split/Splitless Glass Liners

- Clean, Non-adsorptive/Non-reactive Surface
- Glass Wool is Deactivated With Our Proprietary Deactivation Process
- Packaged in Ultra Clean, White Non-Plastic Fluted Trays
- Ultra Clean Foil Wrapped Liners- An Industry Exclusive



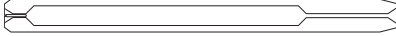
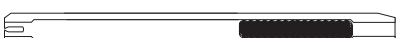
	Description	Old Varian Liner #	Qty	Part#	Price \$
	Splitless	03-949437-90	5/pk 25/pk	190010905 190010905-25	-
	Split w/ deactivated FS Wool	01-900109-01	5/pk 25/pk	190010901 190010901-25	-
	Laminar Cap Splitter	01-900109-02	5/pk 25/pk	190010902 190010902-25	-
	Frit Splitter	16-000830-01	5/pk 25/pk	190010903 190010903-25	-
	Baffle Splitter	16-000829-00	5/pk 25/pk	190010904 190010904-25	-
	Split, packed with 10% OV-101 On Chromosorb W-HP	03-949809-00	5/pk 25/pk	392611941 392611941-25	-
	Split, unpacked	16-000830-00	5/pk 25/pk	392611942 392611942-25	-
	Graphite Ferrule 1/4" to fit 1075/1077 Split/Splitless Liners		5/pk 25/pk	392611763-5 392611763-25	-

Varian/Bruker GC Deactivated Inlet Liners

1060/1061 Split/Splitless Glass Liners

- Packaged in Ultra Clean, White Non-Plastic Fluted Trays
- Glass Wool is Deactivated With Our Proprietary Deactivation Process
- Ultra Clean Foil Wrapped Liners- An Industry Exclusive
- Made with a Consistent, High Quality Proprietary Deactivation Process



	Description	Old Varian Liner #	Qty	Part#	Price \$
	Glass Flash, Megabore 0.53 mm ID columns universal flash	03-918339-00	5/pk 25/pk	392611943 392611943-25	-
	Heated Flash Vaporization injector w/ deactivated glass wool	37-000813-00	5/pk 25/pk	392611944 392611944-25	-

GC Injector Liners

Varian/Bruker GC Deactivated Inlet Liners

1078/1079 Split/Splitless Glass Liners

- Enhanced Analytical Precision for Higher Molecular Weight Components
- Ultra Clean Foil Wrapped Liners- An Industry Exclusive
- Consistent Dimensions, Tolerances and Quality
- Proven Silanization Technique, to Ensure Inertness
- Packaged in Ultra Clean, White Non-Plastic Fluted Trays



	Description	Old Varian Liner #	Qty	Part#	Price \$
	Split, open, 3.4 mm ID	03-918464-00	5/pk 25/pk	392611945 392611945-25	-
	Split, frit, 3.4 mm ID	03-918464-01	5/pk 25/pk	392611946 392611946-25	-
	Splitless, open, 2 mm ID	03-918466-00	5/pk 25/pk	392611947 392611947-25	-
	Split, packed with 10% OV-101 on Chromosorb W-HP 80/100	03-918956-00	5/pk 25/pk	392611954 392611954-25	-
	SPME, 0.8 mm ID	03-925330-00	5/pk 25/pk	392611948 392611948-25	-
	Splitless, open, 0.5 mm ID	03-925331-00	5/pk 25/pk	392611949 392611949-25	-
	Split/splitless, w/ deactivated glass wool, 2 mm ID	03-925350-00	5/pk 25/pk	392611953 392611953-25	-
	High linearity for 0.25 mm and 0.32 mm ID columns	03-918332-01	5/pk 25/pk	190010906 190010906-25	-
	High linearity for 0.53 mm ID columns	03-918332-02	5/pk 25/pk	190010907 190010907-25	-
	Capillary Nut for Varian 1078 Injector, Brass Column Scale Nut		5/pk 25/pk	392611911-5 392611911-25	-
	Capillary Nut for Varian 1078 Injector, Brass Column Scale Nut		5/pk 25/pk	392611910-5 392611910-25	-
	Graphite Ferrules, 5 mm ID to fit 1078 Split/Splitless Injector Liners		5/pk 25/pk	392611919-5 392611919-25	-

Varian/Bruker GC Deactivated Inlet Liners

1095/1096/1097/1098 Temperature Programmable Injector Liners (on-column)

- Ultra Clean Foil Wrapped Liners- An Industry Exclusive
- Made with a Consistent, High Quality Proprietary Deactivation Process
- In-house manufacturing that meets/exceeds instrument manufacturer's specs
- Packaged in Ultra Clean, White Non-Plastic Fluted Trays



	Description	Old Varian Liner #	Qty	Part#	Price \$
	Glass Column Guide (3400/3500/3600)	03-917310-00	5/pk 25/pk	392611951 392611951-25	-
	Glass Column Guide (3700/6000)	03-908701-00	5/pk 25/pk	392611952 392611952-25	-

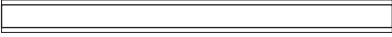
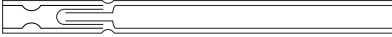
GC Injector Liners

GC Deactivated Inlet Liners- Agilent (HP) Compatible

Split/Splitless Liners for HP/Finnigan GCs Models 4890, 5880, 5890, 6850, 6890, Finnigan 9001 GCQ

- In-house manufacturing that meets/exceeds instrument manufacturer's specs
 - Each Liner is deactivated to assure a clean, inert glass surface
 - Ultra Clean Foil Wrapped Liners- An Industry Exclusive
 - Packaged in Ultra Clean, White Non-Plastic Fluted Trays
 - Made with a Consistent, High Quality Proprietary Deactivation Process
- These liners are not manufactured by Agilent



	Description	Similar to HP Liner #	Qty	Part#	Price \$
	2 mm Splitless, 6.5 OD x 78.5 L x 2 mm ID	18740-80220 5181-8818	5/pk 25/pk	392611924 392611924-25	-
	4 mm Splitless, 6.5 OD x 78.5 L x 4 mm ID	18740-80220 5181-8818/4mm	5/pk 25/pk	392611925 392611925-25	-
	2 mm Gooseneck Split/ Splitless, 6.5 OD x 78.5 L x 2 mm ID	5181-3316 modified/2mm	5/pk 25/pk	392611926 392611926-25	-
	4 mm Gooseneck Splitless, 6.5 OD x 78.5 L x 4 mm ID	5181-3316	5/pk 25/pk	392611927 392611927-25	-
	4 mm Gooseneck Splitless Packed w/ deactivated FS wool, 6.5 OD x 78.5 L x 4 mm ID	5062-3587	5/pk 25/pk	392611928 392611928-25	-
	4 mm Double Gooseneck Splitless, 6.5 OD x 78.5 L x 4 mm ID	5181-3315	5/pk 25/pk	392611929 392611929-25	-
	Cup unpacked, 6.3 OD x 78.5 L x 4 mm ID	18740-80190	5/pk 25/pk	392611931 392611931-25	-
	Cup, packed w/ deactivated FS wool, 6.3 OD x 78.5 L x 4 mm ID	18740-80190 modified	5/pk 25/pk	392611932 392611932-25	-
	Cup, packed w/10% OV-1 On Chromosorb-W HP, 6.3 OD x 78.5 L x 4 mm ID	18740-60840	5/pk 25/pk	392611933 392611933-25	-
	Split 4mm Packed w/ deactivated FS wool, 6.3 OD x 78.5 L x 4 mm ID	19251-60540	5/pk 25/pk	392611934 392611934-25	-
	4 mm Gooseneck Split/ Splitless w/ deactivated glass wool		5/pk 25/pk	392611936 392611936-25	-
	4 mm Split w/ deactivated glass wool		5/pk 25/pk	392611937 392611937-25	-
	2 mm Splitless w/ deactivated glass wool		5/pk 25/pk	392611938 392611938-25	-
	Graphite O-Rings, 6.5 mm ID to fit HP splitless 6.5 mm OD liners		10/pk 100/pk	392611930 392611930-100	-
	Graphite O-Rings, 6.3 mm ID to fit HP split 6.3 mm OD liners	5180-4168	10/pk 100/pk	392611935 392611935-100	-

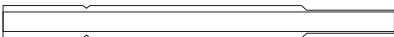
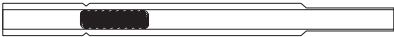
GC Injector Liners

Perkin Elmer GC Deactivated Inlet Liners

Split/Splitless Glass Liners

- Each Liner is deactivated to assure a clean, inert glass surface
- Consistent dimensions, tolerances and quality
- Packaged in Ultra Clean, White Non-Plastic Fluted Trays
- Glass Wool is Deactivated With Our Proprietary Deactivation Process
- Ultra Clean Foil Wrapped Liners- An Industry Exclusive



	Description	Similar to HP Liner #	Qty	Part#	Price \$
	4 mm Split Autosystem, 4 ID x 92 L x 6.2 mm OD	N610-1052	5/pk 25/pk	392611921 392611921-25	-
	4 mm Split Autosystem, Packed w/ deactivated Glass Wool, 4 ID x 92 L x 6.2 mm OD	N610-1052 modified	5/pk 25/pk	392611922 392611922-25	-
	2 mm Splitless Autosystem, 4 ID x 92 L x 6.2mm OD	N610-1372	5/pk 25/pk	392611923 392611923-25	-

Jacketed Graphite Ferrules & Capillary Nuts

- Graphite Ferrules for Capillary Columns, jacketed in brass
- Capillary Nut to Fit Jacketed Ferrules
- Stable to 450°C
- Does not stick to Glass or Fused Silica
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Jacketed Ferrules for Varian 1078 Inj., Brass Jacket, 0.4mm Graphite Ferrule	10/pk	392611912	-
	50/pk	392611912-50	-
Jacketed Ferrules for Varian 1078 Inj., Brass Jacket, 0.5mm Graphite Ferrule	10/pk	392611913	-
	50/pk	392611913-50	-
Jacketed Ferrules for Varian 1078 Inj., Brass Jacket, 0.8mm Graphite Ferrule	10/pk	392611755	-
	50/pk	392611755-50	-
Capillary Nut for Varian 1078 Injector, Brass Column Scale Nut	1/pk	392611910	-
	10/pk	392611911	-

Special Graphite Ferrule for Varian Liners, 450°C

- For Varian Split/Splitless 1075/1077/1078 Liners
- Stable to 450°C
- High Density Graphite
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Special 1/4" Graphite Ferrule for Varian Split/Splitless 1075/1077 Liner 394936200	10/pk	392611763	-
	50/pk	392611763-50	-
Special 5mm Graphite Ferrule for Varian Split/Splitless 1078 Inj. Liners 392534200	10/pk	392611919	-
	50/pk	392611919-50	-

GC Injector Liners

Ultra Clean Graphite Ferrule, 450°C

- Temperature Programmed Conditioning at 400°C
- Fifty Programmed Ramp Ups in GC oven
- Stable to 450°C
- High Density Graphite
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Packaged in "Ultra Clean" Glass Bottles with Special Yellow "Keep Clean" Label



Description	Qty	Part#	Price \$
Ultra Clean 5mm Preconditioned Graphite Ferrules for Varian, Bruker & Agilent Chromatographs	2/pk	392534202	-
	10/pk	392534201	-

Graphite O-Rings

- For Agilent and Varian 1177 Injectors
- Excellent thermal stability at injection port temperatures up to 450°C



Description	Qty	Part#	Price \$
Graphite O-Rings, 6.3mm ID, to fit HP Split 6.3mm OD liners	10/pk	392611935	-
	50/pk	392611935-50	-
Graphite O-Rings, 6.5mm ID, Same as HP 5180-4173	10/pk	392611930	-
	50/pk	392611930-50	-
Viton O-Rings 250°C One Size Fits Split/ 6.3mm & Splitless/ 6.5mm OD Liners	10/pk	392611764	-
	50/pk	392611764-50	-
Graphite O-Rings, 6.5mm I.D. to Fit 1177 Injector, Glass Liners	10/pk	392611940	-
	50/pk	392611940-50	-
Graphite O-Rings for Varian and Hp Liners, 450°C, 6.3mm I.D. for Split Liners	10/pk	392611761	-
	50/pk	392611761-50	-
Graphite O-Rings for Varian and HP Liners, 6.5mm I.D. for Splitless Liners	10/pk	392611762	-
	50/pk	392611762-50	-
Graphite O-Rings for Varian 1177 and HP Liners, 6.5mm I.D.	10/pk	392611918	-
	50/pk	392611918-50	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

GC Septa

- ♦ Agilent (HP) **Compatible**
- ♦ Varian
- ♦ Bruker
- ♦ Perkin Elmer
- ♦ Antek
- ♦ Finnigan (TMQ)
- ♦ Gow Mac
- ♦ HNU
- ♦ Shimadzu
- ♦ SRI
- ♦ Thermo Scientific ♦ Tracor

Varian/Bruker

Instrument	Septum Diameter (mm)
Packed Column	9.5/10
1177	9
1075/1077/1078/1079/1093/1094 SPI	11.5
1040/1041/1060/1061	9.5
3700 Vista	11
Capillary Injectors	11
Saturn GC/MS	11/11.5

Agilent (HP)

Instrument	Septum Diameter (mm)
HP5750 & Earlier	12.5
5880A, 5890, 6850, 6890, 7890, PTV, Purged Pack Column	11
5700, 5880, 5890, 6890, 6900	9.5
On-Column Injection, Capillary	5

Perkin Elmer

Instrument	Septum Diameter (mm)
Sigma Series	11
900,990	11
8000 Series	11
Auto SYS	11
Auto SYS XL, Clarus 500	11

Shimadzu

Instrument	Septum Diameter (mm)
All Models (14, 15A, 16, 17A)	Plug

Tracor

Instrument	Septum Diameter (mm)
550, 560	9.5
220, 222, 540	12.5

Septa Reference Chart

Finnigan (TMQ)

Instrument	Septum Diameter (mm)
GC 9001, 9600	9.5
GCQ	9.5
QCQ	9.5
TRACE 2000	9.5
9000/9500	12.5

Thermo Scientific

Instrument	Septum Diameter (mm)
TRACE GC/ Focus Split/ Splitless	17
GCQ w/TRACE, PTV	17
8000 Series	17
GCQ, 9100	9.5

Gow Mac

Instrument	Septum Diameter (mm)
All Models	9.5

HNU

Instrument	Septum Diameter (mm)
Portable GC	9.5

Antek

Instrument	Septum Diameter (mm)
All Models	9.5

SRI

Instrument	Septum Diameter (mm)
All Models	Plug

Premium High Temp/Low Bleed Septa, 400°C Max

- Injector Temperature 400°C
- Conditioned For High Sensitivity Analysis
- Lowest Bleed When Tested Against The Competition
- Long Injector Life, 170 + Injections
- Carefully chosen to meet the varied requirements of gas chromatographic analyses
- Packaged in Wide Mouth Glass Bottles



Description	Qty	Part#	Price \$
Premium High Temp/Low Bleed Septa 5 mm (3/16 in.)	50/Pk	392611679	
	100/Pk	392611680	-
Premium High Temp/Low Bleed Septa 9 mm (11/32 in.)	50/Pk	392611681	
	100/Pk	392611682	-
Premium High Temp/Low Bleed Septa 9.5 mm (3/8 in.)	50/Pk	392611683	
	100/Pk	392611684	-
Premium High Temp/Low Bleed Septa 11 mm (7/16 in.)	50/Pk	392611685	
	100/Pk	392611686	-
Premium High Temp/Low Bleed Septa 11.5 mm (11/24 in.)	50/Pk	392611687	
	100/Pk	392611688	-
Premium High Temp/Low Bleed Septa 12.5 mm (1/2 in.)	50/Pk	392611689	
	100/Pk	392611690	-
Premium High Temp/Low Bleed Septa 17 mm (21/32 in.)	50/Pk	392611691	
	100/Pk	392611692	-
Premium High Temp/Low Bleed Septa Shimadzu Plug	50/Pk	392611693	
	100/Pk	392611694	-

Premium Medium Temperature Septa, 300°C Max

- Heat Stable To 300° C
- Unique Conditioning Process
- Long Injection Life, 125+ Injections
- Low Bleed
- Offer overall dependability in the under 300° C temperature range
- Packaged In Wide Mouth Glass Bottles



Description	Qty	Part#	Price \$
Premium medium temperature septa, 5 mm (3/16 in.)	50/Pk	392611695	
	100/Pk	392611696	-
Premium medium temperature septa, 9 mm (11/32 in.)	50/Pk	392611697	
	100/Pk	392611698	-
Premium medium temperature septa, 9.5 mm (3/8 in.)	50/Pk	392611699	
	100/Pk	392611701	-
Premium medium temperature septa, 11 mm (7/16 in.)	50/Pk	392611702	
	100/Pk	392611703	-
Premium medium temperature septa, 11.5 mm (11/24 in.)	50/Pk	392611704	
	100/Pk	392611705	-
Premium medium temperature septa, 12.5 mm (1/2 in.)	50/Pk	392611706	
	100/Pk	392611707	-
Premium medium temperature septa, 17.0 mm (21/32 in.)	50/Pk	392611708	
	100/Pk	392611709	-
Premium medium temperature septa, Shimadzu Plug	50/Pk	392611710	
	100/Pk	392611711	-

Premium General Purpose Septa, 250°C Max

- Heat Stable To 250°C
- Isothermal Use, Easy To penetrate
- Long Injection Life, 150+ Injections
- Low cost silicone rubber, designed for low temperature
- Long injector life applications
- Packaged In Wide Mouth Glass Bottles



Description	Qty	Part#	Price \$
Premium General Purpose septa, 5 mm (3/16 in.)	50/Pk	392611712	-
	100/Pk	392611713	-
Premium General Purpose septa, 9 mm (11/32 in.)	50/Pk	392611714	-
	100/Pk	392611715	-
Premium General Purpose septa, 9.5 mm (3/8 in.)	50/Pk	392611716	-
	100/Pk	392611717	-
Premium General Purpose septa, 11 mm (7/16 in.)	50/Pk	392611718	-
	100/Pk	392611719	-
Premium General Purpose septa, 11.5 mm (11/24 in.)	50/Pk	392611720	-
	100/Pk	392611721	-
Premium General Purpose septa, 12.5 mm (1/2 in.)	50/Pk	392611722	-
	100/Pk	392611723	-
Premium General Purpose septa, 17.0 mm (21/32 in.)	50/Pk	392611724	-
	100/Pk	392611725	-
Premium General Purpose septa, Shimadzu plug	50/Pk	392611726	-
	100/Pk	392611727	-

Green High Temp/Low Bleed Septa, 350°C Max

- Heat Stable to 350°C
- Packaged In Wide Mouth Glass Bottles
- Long Injector Life



Description	Qty	Part#	Price \$
Green High Temp/Low Bleed Septa, 11 mm	50/pk	392611920	-
	100/pk	392611920-100	-
Green High Temp/Low Bleed Septa, 9 mm	50/pk	392611736	-
	100/pk	392611736-100	-

General Purpose Grey Septa, 250°C Max

- Heat Stable To 250°C
- Ease of Penetration
- Long Injection Life, 100+ Injections
- Isothermal Use
- Packaged In Wide Mouth Glass Bottles



Description	Qty	Part#	Price \$
General Purpose Grey Septa 9.5 mm (3/8 in.)	25/Pk	392611728	-
	100/Pk	392611729	-
General Purpose Grey Septa 11 mm (7/16 in.)	25/Pk	392611730	-
	100/Pk	392611731	-

Beige Low Bleed Teflon Faced Septa, 250°C Max

- Long Life & Low Bleed
- Silicone Discs With Neutral Teflon Facing
- Packaged in Wide Mouth Glass Bottles



Description	Qty	Part#	Price \$
Beige Low Bleed Standard Teflon Faced Septa 9.5 mm (3/8 in.)	25/Pk	392611737	
	100/Pk	392611738	-
Beige Low Bleed Standard Teflon Faced Septa 11 mm (7/16 in.)	25/Pk	392611739	
	100/Pk	392611740	-

High Sensitivity Teflon Faced Septa, 250°C Max

- For Low Concentration Samples
- Recommended For FID & ECD Use
- Can Withstand a Large Number of Punctures
- Packaged In Wide Mouth Glass Bottles



Description	Qty	Part#	Price \$
High Sensitivity Teflon Faced Septa 9.5 mm (3/8 in.)	25/Pk	392611732	
	100/Pk	392611733	-
High Sensitivity Teflon Faced Septa 11 mm (7/16 in.)	25/Pk	392611734	
	100/Pk	392611735	-

High Temperature Thermogreen® Septa, 350°C Max

- Recommended for use in all GC/MS Instruments
- Extremely Low Bleed Septa
- Ideal for Autosamplers



Description	Qty	Part#	Price \$
Thermogreen Septa, 9 mm	5/pk	392598902	
	25/pk	392598903	-
Thermogreen Septa, 11 mm (7/16 in.)	5/pk	392035701	
	25/pk	392035702	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

Ultra Sensitive High Temp/Low Bleed Septa, 400°C Max

- Injector Temperature 400°C
- Conditioned For High Sensitivity Analysis, Ultra Low Bleed
- Precision Molded, Easy to Pierce
- Premium Platinum Cured Silicone
- Precise Fit, No Flared Edges
- No Ghost Peaks
- Packaged in Ultra Clean Wide Mouth Glass Bottles, Ready to Use



Description	Qty	Part#	Price \$
Ultra Sensitive High Temp/Low Bleed Septa 9.5 mm (3/8 in.)	50/Pk	40002	-
	100/Pk	40002-100	-
Ultra Sensitive High Temp/Low Bleed Septa 10 mm	50/Pk	40031	-
	100/Pk	40031-100	-
Ultra Sensitive High Temp/Low Bleed Septa 11 mm (7/16 in.)	50/Pk	40003	-
	100/Pk	40003-100	-
Ultra Sensitive High Temp/Low Bleed Septa 17 mm (21/32 in.)	50/Pk	40006	-
	100/Pk	40006-100	-

Ultra Sensitive High Temp/Low Bleed Septa, 400°C Max (w/ Guide Hole)

- Injector Temperature 400°C
- Guide Hole for Easy Needle Insertion
- Conditioned For High Sensitivity Analysis, Ultra Low Bleed
- Precision Molded, Easy to Pierce
- Premium Platinum Cured Silicone
- Precise Fit, No Flared Edges
- No Ghost Peaks
- Packaged in Ultra Clean Wide Mouth Glass Bottles, Ready to Use



Description	Qty	Part#	Price \$
Ultra Sensitive High Temp/Low Bleed Septa 9.5 mm (3/8 in.) w/ Guide Hole	50/Pk	40010	-
	100/Pk	40010-100	-
Ultra Sensitive High Temp/Low Bleed Septa 10 mm w/ Guide Hole	50/Pk	40032	-
	100/Pk	40011-100	-
Ultra Sensitive High Temp/Low Bleed Septa 11 mm (7/16 in.) w/ Guide Hole	50/Pk	40011	-
	100/Pk	40011-100	-
Ultra Sensitive High Temp/Low Bleed Septa 17 mm (21/32 in.) w/ Guide Hole	50/Pk	40014	-
	100/Pk	40014-100	-
Ultra Sensitive High Temp/Low Bleed Septa Shimadzu Plug w/ Guide Hole	50/Pk	392611693US	-
	100/Pk	392611694US	-

Ultra Sensitive General Purpose Medium Temp/Low Bleed Septa, 325°C Max

- Injector Temperature 325°C
- Conditioned For High Sensitivity Analysis, Ultra Low Bleed
- Precision Molded, Easy to Pierce
- Premium Platinum Cured Silicone
- Precise Fit, No Flared Edges
- No Ghost Peaks
- Packaged in Ultra Clean Wide Mouth Glass Bottles, Ready to Use



Description	Qty	Part#	Price \$
Ultra Sensitive Medium Temp/Low Bleed Septa 9.5 mm (3/8 in.)	50/Pk	40018	-
	100/Pk	40018-100	-
Ultra Sensitive Medium Temp/Low Bleed Septa 10 mm	50/Pk	40033	-
	100/Pk	40033-100	-
Ultra Sensitive Medium Temp/Low Bleed Septa 11 mm (7/16 in.)	50/Pk	40019	-
	100/Pk	40019-100	-
Ultra Sensitive Medium Temp/Low Bleed Septa 17 mm (21/32 in.)	50/Pk	40022	-
	100/Pk	40022-100	-

Ultra Sensitive General Purpose Medium Temp/Low Bleed Septa, 325°C Max (w/ Guide Hole)

- Injector Temperature 325°C
- Guide Hole for Easy Needle Insertion
- Conditioned For High Sensitivity Analysis, Ultra Low Bleed
- Precision Molded, Easy to Pierce
- Premium Platinum Cured Silicone
- Precise Fit, No Flared Edges
- No Ghost Peaks
- Packaged in Ultra Clean Wide Mouth Glass Bottles, Ready to Use



Description	Qty	Part#	Price \$
Ultra Sensitive Medium Temp/Low Bleed Septa 9.5 mm (3/8 in.) w/ Guide Hole	50/Pk	40026	-
	100/Pk	40026-100	-
Ultra Sensitive Medium Temp/Low Bleed Septa 10 mm w/ Guide Hole	50/Pk	40034	-
	100/Pk	40034-100	-
Ultra Sensitive Medium Temp/Low Bleed Septa 11 mm (7/16 in.) w/ Guide Hole	50/Pk	40027	-
	100/Pk	40027-100	-
Ultra Sensitive Medium Temp/Low Bleed Septa 17 mm (21/32 in.) w/ Guide Hole	50/Pk	40030	-
	100/Pk	40030-100	-

GC Ferrules

Vespel®/Graphite

Graphite

Vespel®

Teflon®

- ◆ Agilent (HP) Compatible
- ◆ Varian
- ◆ Bruker
- ◆ Perkin Elmer
- ◆ Antek
- ◆ Carlo Erba
- ◆ Finnigan (TMQ)
- ◆ Gow Mac
- ◆ HNU
- ◆ Shimadzu
- ◆ SRI
- ◆ Thermo Scientific
- ◆ Tracor
- ◆ All GC's
- ◆ Specialty Application Ferrules
- ◆ Custom Sizes Available

60% Polyimide (Vespe[®]) /40% Graphite Ferrules

- Stable to 400°C
- Minimal Torque Required to Seal
- Reusable, One-piece Design, Precision Drilled
- Excellent for Vacuum & High Pressure Applications
- Recommended for Mass Spec Transfer Line
- Offers the Best Combination of Sealing and Easy Workability
- Packaged in "Ultra Clean" Glass Bottles
- Ferrules for Capillary and Standard Columns



Description	Qty	Part#	Price \$
60% Polyimide (Vespe [®])/40% Graphite Ferrule 1/16in. Fitting to 1/16 in. OD Tube	10/pk 50/pk	392611741 392611741-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/16 in. Fitting to No Hole (Blanks)	10/pk 50/pk	392611742 392611742-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/8 in. Fitting to 1/16 in. OD Tube	10/pk 50/pk	392611743 392611743-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/8 in. Fitting to 1/8 in. OD Tube	10/pk 50/pk	392611744 392611744-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/8 in. Fitting to No Hole (Blanks)	10/pk 50/pk	392611745 392611745-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/4 in. Fitting to 1/16 in. OD Tube	10/pk 50/pk	392611746 392611746-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/4 in. Fitting to 1/8 in. OD Tube	10/pk 50/pk	392611747 392611747-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/4 in. Fitting to 1/4 in. OD Tube	10/pk 50/pk	392611748 392611748-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/4 in. Fitting to 6 mm OD Tube	10/pk 50/pk	392611749 392611749-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/4 in. Fitting to No Hole (Blanks)	10/pk 50/pk	392611750 392611750-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/16 in. Fitting to 0.3 mm OD Column	10/pk 50/pk	392611958 392611958-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/16 in. Fitting to 0.4 mm OD Column	10/pk 50/pk	392611959 392611959-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/16 in. Fitting to 0.5 mm OD Column	10/pk 50/pk	392611960 392611960-50	-
60% Polyimide (Vespe [®])/40% Graphite Ferrule, 400°C, 1/16 in. Fitting to 0.8 mm OD Column	10/pk 50/pk	392611961 392611961-50	-

Vespel®/Graphite Ferrules

Short 60% Polyimide (Vespel®)/40% Graphite Ferrules, Agilent (HP) compatible

- Recommended for use with Agilent (HP) 4890, 5890, 6890 Inlet Systems
- Stable to 400°C
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Short 60% Polyimide (Vespel®)/40% Graphite Ferrule, 1/16 in. to 0.4 mm OD Column, Agilent (HP) compatible	10/pk	392611787	-
	50/pk	392611787-50	
Short 60% Polyimide (Vespel®)/40% Graphite Ferrule, 1/16 in. to 0.5 mm OD Column, Agilent (HP) compatible	10/pk	392611788	-
	50/pk	392611788-50	
Short 60% Polyimide (Vespel®)/40% Graphite Ferrule, 1/16 in. to 0.8 mm OD Column, Agilent (HP) Compatible	10/pk	392611789	-
	50/pk	392611789-50	

Preconditioned 60% Polyimide (Vespel®)/40% Graphite Ferrules, 400°C

- Stable to 400°C
- Offers the Best Combination of Sealing and Easy Workability
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Preconditioned 60% Polyimide (Vespel®)/40% Graphite Ferrule, 1/16 in. Fitting to 0.3 mm OD Column	10/pk	392611962	-
	50/pk	392611962-50	
Preconditioned 60% Polyimide (Vespel®)/40% Graphite Ferrule, 1/16 in. Fitting to 0.4 mm OD Column	10/pk	392611963	-
	50/pk	392611963-50	
Preconditioned 60% Polyimide (Vespel®)/40% Graphite Ferrule, 1/16 in. Fitting to 0.5 mm OD Column	10/pk	392611964	-
	50/pk	392611964-50	
Preconditioned 60% Polyimide (Vespel®)/40% Graphite Ferrule, 1/16 in. Fitting to 0.8 mm OD Column	10/pk	392611965	-
	50/pk	392611965-50	

Two hole 60% Polyimide (Vespel®)/ 40% Graphite Ferrules, 400°C

- Stable to 400°C
- Reusable, One-piece Design, Precision Drilled
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Two Hole 60% Polyimide (Vespel®)/40% Graphite Ferrule, 1/16 in. Fitting to 0.5-0.5 mm OD Column	10/pk	392611785	-
	50/pk	392611785-50	
Two Hole 60% Polyimide (Vespel®)/40% Graphite Ferrule, 1/16 in. Fitting to 0.8-0.8 mm OD Column	10/pk	392611786	-
	50/pk	392611786-50	
Two Hole 60% Polyimide (Vespel®)/40% Graphite Ferrule, 1/16 in. Fitting to 0.3-0.3 mm OD Column	10/pk	392611966	-
	50/pk	392611966-50	
Two Hole 60% Polyimide (Vespel®)/40% Graphite Ferrule, 1/16 in. Fitting to 0.4-0.4 mm OD Column	10/pk	392611967	-
	50/pk	392611967-50	

Capillary Ferrules for 1/16" Compression-Type Ferrules

- 60% Polyimide (Vespe[®])/ 40% Graphite
- For Agilent Injectors & Detectors; 5890/6890/7890 GCs
- Stable to 400°C
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" x No Hole "Short"	No Hole	10/pk	32100	-
		50/pk	32100-50	
1/16" X 0.3 mm	0.1 mm	10/pk	32101	-
		50/pk	32101-50	
1/16" X 0.4 mm	0.2 - 0.25 mm	10/pk	32102	-
		50/pk	32102-50	
1/16" X 0.5 mm	0.32 mm	10/pk	32103	-
		50/pk	32103-50	
1/16" X 0.8 mm	0.53 mm	10/pk	32104	-
		50/pk	32104-50	

Standard Capillary 1/16" Ferrules

- 60% Polyimide (Vespe[®])/ 40% Graphite
- Ferrules for capillary columns
- Stable to 400°C
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" x No Hole	No Hole	10/pk	32108	-
		50/pk	32108-50	
1/16" X 1/16"	1/16" TUBE O.D.	10/pk	32109	-
		50/pk	32109-50	
1/16" X 0.3 mm	0.1 mm	10/pk	32110	-
		50/pk	32110-50	
1/16" X 0.4 mm	0.2 - 0.25 mm	10/pk	32111	-
		50/pk	32111-50	
1/16" X 0.5 mm	0.32 mm	10/pk	32112	-
		50/pk	32112-50	
1/16" X 0.8 mm	0.45 - 0.53 mm	10/pk	32113	-
		50/pk	32113-50	
1/16" X 1.0 mm	0.65 mm	10/pk	32114	-
		50/pk	32114-50	
1/16" X 1.2 mm	0.75 mm	10/pk	32115	-
		50/pk	32115-50	

Two Hole 1/16" Ferrules

- 60%Polyimide (Vespe[®])/ 40% Graphite
- For 1/16" Compression-Type Fittings
- Use 1/16" Two Hole Ferrules with 1/16" Capillary Adapter Fittings
- Stable to 400°C
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" X 0.4 mm (2-hole)	0.2 - 0.25 mm	10/pk	32118	-
		50/pk	32118-50	
1/16" X 0.5 mm (2-hole)	0.32 mm	10/pk	32119	-
		50/pk	32119-50	
1/16" X 0.8 mm (2-hole)	0.53 mm	10/pk	32120	-
		50/pk	32120-50	

Standard, Capillary & Reducing 1/8" Ferrules

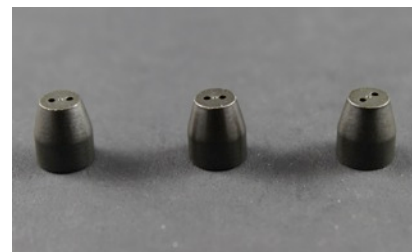
- 60% Polyimide (Vespe[®])/ 40% Graphite
- Ferrules for Capillary and Standard Columns
- Packaged in "Ultra Clean" Glass Bottles
- Stable to 400°C



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" x No Hole	No Hole	10/pk	32123	-
		50/pk	32123-50	
1/8" X 1/8"	1/8" TUBE O.D.	10/pk	32124	-
		50/pk	32124-50	
1/8" X 1/16"	1/16" TUBE O.D.	10/pk	32125	-
		50/pk	32125-50	
1/8" X 0.4 mm	0.2 - 0.25 mm	10/pk	32126	-
		50/pk	32126-50	
1/8" X 0.5 mm	0.32 mm	10/pk	32127	-
		50/pk	32127-50	
1/8" X 0.8 mm	0.45 - 0.53 mm	10/pk	32128	-
		50/pk	32128-50	
1/8" X 1.0 mm	0.65 mm	10/pk	32129	-
		50/pk	32129-50	
1/8" X 1.2 mm	0.75 mm	10/pk	32130	-
		50/pk	32130-50	
1/8" X 2.4 mm	2.4 mm O.D. TUBE	10/pk	32131	-
		50/pk	32131-50	

Two Hole 1/8" Ferrules

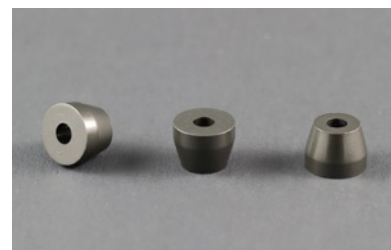
- 60% Polyimide (Vespel®)/ 40% Graphite
- For 1/8" Compression-Type Fittings
- Use 1/8" Two Hole Ferrules with 1/8" Capillary Adapter Fittings
- Stable to 400°C
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" X 0.5 mm (2-hole)	0.32 mm	10/pk	32134	-
		50/pk	32134-50	
1/8" X 0.8 mm (2-hole)	0.53 mm	10/pk	32135	-
		50/pk	32135-50	

Standard, Capillary & Reducing 1/4" Ferrules

- 60% Polyimide (Vespel®)/ 40% Graphite
- Ferrules for Capillary and Standard Columns
- Packaged in "Ultra Clean" Glass Bottles
- Stable to 400°C



Description	Fits Column ID	Qty.	Part#	Price \$
1/4" x No Hole	No Hole	10/pk	32138	-
		50/pk	32138-50	
1/4" X 1/4"	1/4" TUBE O.D.	10/pk	32139	-
		50/pk	32139-50	
1/4" X 1/8"	1/8" TUBE O.D.	10/pk	32141	-
		50/pk	32141-50	
1/4" X 1/16"	1/16" TUBE O.D.	10/pk	32142	-
		50/pk	32142-50	
1/4" X 3/16"	3/16" TUBE O.D.	10/pk	32143	-
		50/pk	32143-50	
1/4" X 0.4 mm	0.2 - 0.25 mm	10/pk	32144	-
		50/pk	32144-50	
1/4" X 0.5 mm	0.32 mm	10/pk	32145	-
		50/pk	32145-50	
1/4" X 0.8 mm	0.53 mm	10/pk	32146	-
		50/pk	32146-50	
1/4" X 1.0 mm	0.65 mm	10/pk	32147	-
		50/pk	32147-50	
1/4" X 1.2 mm	0.75 mm	10/pk	32148	-
		50/pk	32148-50	
1/4" X 4.0 mm	4.0 mm TUBE O.D.	10/pk	32149	-
		50/pk	32149-50	
1/4" X 6.0 mm	6.0 mm TUBE O.D.	10/pk	32150	-
		50/pk	32150-50	

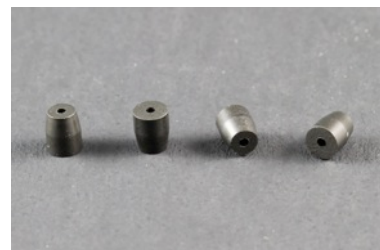
Custom products & bulk pricing available.
Email or fax us with your specifications for more information.

85% Polyimide (Vespel®) /15% Graphite Ferrules

- Stable to 400°C
- Minimal Torque Required to Seal
- Reusable, One-piece Design, Precision Drilled
- Packaged in "Ultra Clean" Glass Bottles

85%Polyimide (Vespel®)/ 15% Graphite Ferrules, 400°C

- Stable to 400°C
- Packaged in "Ultra Clean" Glass Bottles
- Excellent for Vacuum & High Pressure Applications



Description	Qty	Part#	Price \$
85% Polyimide (Vespel®)/15% Graphite Ferrule, 400°C, 1/16 in. Fitting to 0.3 mm OD Column	10/pk	392611790	-
	50/pk	392611790-50	
85% Polyimide (Vespel®)/15% Graphite Ferrule, 400°C, 1/16 in. Fitting to 0.4 mm OD Column	10/pk	392611791	-
	50/pk	392611791-50	
85% Polyimide (Vespel®)/15% Graphite Ferrule, 400°C, 1/16 in. Fitting to 0.5 mm OD Column	10/pk	392611792	-
	50/pk	392611792-50	
85% Polyimide (Vespel®)/15% Graphite Ferrule, 400°C, 1/16 in. Fitting to 0.8 mm OD Column	10/pk	392611793	-
	50/pk	392611793-50	

Short 85% Polyimide (Vespel®)/15% Graphite Ferrules Agilent (HP) Compatible

- Recommended for use with Agilent (HP) 4890, 5890, 6890 Inlet Systems
- Ferrules for capillary columns
- Stable to 400°C
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Short 85% Polyimide (Vespel®)/15% Graphite Ferrule, 1/16 in. to 0.4 mm OD Column, Agilent (HP) Compatible	10/pk	392611903	-
	50/pk	392611903-50	
Short 85% Polyimide (Vespel®)/15% Graphite Ferrule, 1/16 in. to 0.5 mm OD Column, Agilent (HP) Compatible	10/pk	392611904	-
	50/pk	392611904-50	
Short 85% Polyimide (Vespel®)/15% Graphite Ferrule, 1/16 in. to 0.8 mm OD Column, Agilent (HP) Compatible	10/pk	392611905	-
	50/pk	392611905-50	

Vespel®/Graphite Ferrules

Preconditioned 85% Polyimide (Vespel®)/15% Graphite Ferrules

- Preconditioned @ 250°C for 5 Hours
- Recommended for Use with GC/MS
- Stable to 400°C
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Preconditioned, 85% Polyimide (Vespel®)/15% Graphite Ferrule, 1/16 in. to 0.3 mm OD Column	10/pk	392611794	-
	50/pk	392611794-50	
Preconditioned, 85% Polyimide (Vespel®)/15% Graphite Ferrule, 1/16 in. to 0.4 mm OD Column	10/pk	392611795	-
	50/pk	392611795-50	
Preconditioned, 85% Polyimide (Vespel®)/15% Graphite Ferrule, 1/16 in. to 0.5 mm OD Column	10/pk	392611796	-
	50/pk	392611796-50	
Preconditioned, 85% Polyimide (Vespel®)/15% Graphite Ferrule, 1/16 in. to 0.8 mm OD Column	10/pk	392611797	-
	50/pk	392611797-50	

Two hole 85% Polyimide (Vespel®)/15% Graphite Ferrules, 400°C

- Ferrules for capillary columns
- Stable to 400°C
- Offers the Best Combination of Sealing and Easy Workability
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Two Hole 85% Polyimide (Vespel®)/15% Graphite Ferrule, 1/16in. to 0.3-0.3 mm OD Column	10/pk	392611798	-
	50/pk	392611798-50	
Two Hole 85% Polyimide (Vespel®)/15% Graphite Ferrule, 1/16in. to 0.4-0.4 mm OD Column	10/pk	392611799	-
	50/pk	392611799-50	
Two Hole 85% Polyimide (Vespel®)/15% Graphite Ferrule, 1/16in. to 0.5-0.5 mm OD Column	10/pk	392611901	-
	50/pk	392611901-50	
Two Hole, 85% Polyimide (Vespel®)/15% Graphite Ferrule, 1/16in. to 0.8-0.8 mm OD Column	10/pk	392611902	-
	50/pk	392611902-50	

Capillary Ferrules for 1/16" Compression-Type Ferrules

- 85% Polyimide (Vespe[®])/ 15% Graphite
- For Agilent Injectors & Detectors; 5890/6890/7890 GCs
- Stable to 400°C
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" x No Hole "Short"	No Hole	10/pk	32047	-
		50/pk	32047-50	
1/16" X 0.3 mm	0.1 mm	10/pk	32048	-
		50/pk	32048-50	
1/16" X 0.4 mm	0.2 - 0.25 mm	10/pk	32049	-
		50/pk	32049-50	
1/16" X 0.5 mm	0.32 mm	10/pk	32050	-
		50/pk	32050-50	
1/16" X 0.8 mm	0.53 mm	10/pk	32051	-
		50/pk	32051-50	

Standard Capillary Ferrules

- 85% Polyimide (Vespe[®])/ 15% Graphite
- Stable to 400°C
- Ferrules for Capillary and Standard Columns
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" Standard x No Hole	No Hole	10/pk	32055	-
		50/pk	32055-50	
1/16" X 1/16"	1/16" TUBE O.D.	10/pk	32056	-
		50/pk	32056-50	
1/16" X 0.3 mm	0.1 mm	10/pk	32057	-
		50/pk	32057-50	
1/16" X 0.4 mm	0.2 - 0.25 mm	10/pk	32058	-
		50/pk	32058-50	
1/16" X 0.5 mm	0.32 mm	10/pk	32059	-
		50/pk	32059-50	
1/16" X 0.8 mm	0.45 - 0.53 mm	10/pk	32060	-
		50/pk	32060-50	
1/16" X 1.0 mm	0.65 mm	10/pk	32061	-
		50/pk	32061-50	
1/16" X 1.2 mm	0.75 mm	10/pk	32062	-
		50/pk	32062-50	

Two Hole Capillary Ferrules

- 85% Polyimide (Vespel®)/ 15% Graphite
- Stable to 400°C
- Ferrules for Capillary and Standard Columns
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" X 0.4 mm (2-hole)	0.2 - 0.25 mm	10/pk	32065	-
		50/pk	32065-50	
1/16" X 0.5 mm (2-hole)	0.32 mm	10/pk	32066	-
		50/pk	32066-50	
1/16" X 0.8 mm (2-hole)	0.53 mm	10/pk	32067	-
		50/pk	32067-50	

Standard, Capillary & Reducing 1/8" Ferrules

- 85% Polyimide (Vespel®)/ 15% Graphite
- Reusable, One-piece Design, Precision Drilled
- Packaged in "Ultra Clean" Glass Bottles
- Stable to 400°C



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" x No Hole	No Hole	10/pk	32073	-
		50/pk	32073-50	
1/8" X 1/8"	1/8" TUBE O.D.	10/pk	32074	-
		50/pk	32074-50	
1/8" X 1/16"	1/16" TUBE O.D.	10/pk	32075	-
		50/pk	32075-50	
1/8" X 0.4 mm	0.2 - 0.25 mm	10/pk	32076	-
		50/pk	32076-50	
1/8" X 0.5 mm	0.32 mm	10/pk	32077	-
		50/pk	32077-50	
1/8" X 0.8 mm	0.45 - 0.53 mm	10/pk	32078	-
		50/pk	32078-50	
1/8" X 1.0 mm	0.65 mm	10/pk	32079	-
		50/pk	32079-50	
1/8" X 1.2 mm	0.75 mm	10/pk	32080	-
		50/pk	32080-50	
1/8" X 2.4 mm	2.4 mm TUBE O.D.	10/pk	32081	-
		50/pk	32081-50	

Vespel®/Graphite Ferrules

Two Hole 1/8" Ferrules

- 85% Polyimide (Vespel®)/ 15% Graphite
- Ferrules for capillary columns
- Stable to 400°C
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" X 0.5 mm (2-hole)	0.32 mm	10/pk	32084	-
		50/pk	32084-50	-
1/8" X 0.8 mm (2-hole)	0.53 mm	10/pk	32085	-
		50/pk	32085-50	-

Standard, Capillary & Reducing 1/4" Ferrules

- 85% Polyimide (Vespel®)/ 15% Graphite
- Excellent for Vacuum & High Pressure Applications
- Stable to 400°C
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/4" x No Hole	No Hole	10/pk	32088	-
		50/pk	32088-50	-
1/4" X 1/4"	1/4" TUBE O.D.	10/pk	32089	-
		50/pk	32089-50	-
1/4" X 1/8"	1/8" TUBE O.D.	10/pk	32090	-
		50/pk	32090-50	-
1/4" X 1/16"	1/16" TUBE O.D.	10/pk	32091	-
		50/pk	32091-50	-
1/4" X 3/16"	3/16" TUBE O.D.	10/pk	32092	-
		50/pk	32092-50	-
1/4" X 0.4 mm	0.2 - 0.25 mm	10/pk	32093	-
		50/pk	32093-50	-
1/4" X 0.5 mm	0.32 mm	10/pk	32094	-
		50/pk	32094-50	-
1/4" X 0.8 mm	0.53 mm	10/pk	32095	-
		50/pk	32095-50	-
1/4" X 1.0 mm	0.65 mm	10/pk	32096	-
		50/pk	32096-50	-
1/4" X 1.2 mm	0.75 mm	10/pk	32097	-
		50/pk	32097-50	-
1/4" X 4.0 mm	4.0 mm TUBE O.D.	10/pk	32098	-
		50/pk	32098-50	-
1/4" X 6.0 mm	6.0 mm TUBE O.D.	10/pk	32099	-
		50/pk	32099-50	-

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more information.

Graphite Ferrules

Graphite Ferrules

- Stable to 450°C
- High Purity Graphite, Preferred for Capillary GC Use
- High Density Graphite
- Preconditioned to Eliminate Out-Gassing
- Contains No Binders that can Out-Gas or Absorb Analytes
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Does not stick to Glass or Fused Silica
- Packaged in "Ultra Clean" Glass Bottles

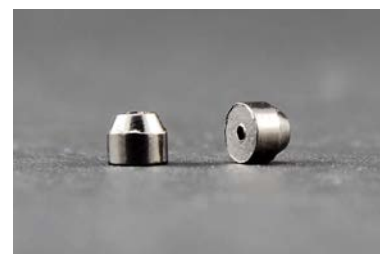


Graphite Ferrules, 450°C

Description	Qty	Part#	Price \$
Graphite Ferrules, 450°C, 1/16 in. Fitting to 1/16 in. OD Tube	10/pk	392611751	-
	50/pk	392611751-50	
Graphite Ferrules, 450°C, 1/16 in. Fitting to 1.0 mm OD Tube	10/pk	392611752	-
	50/pk	392611752-50	
Graphite Ferrules, 450°C, 1/8 in. Fitting Reducing to 1/16 in. OD Tube	10/pk	392611753	-
	50/pk	392611753-50	
Graphite Ferrules, 450°C, 1/8 in. Fitting to 1/8 in. OD Tube	10/pk	392611754	-
	50/pk	392611754-50	
Graphite Ferrules, 450°C, 1/4 in. Fitting Reducing to 1/16 in. OD Tube	10/pk	392611756	-
	50/pk	392611756-50	
Graphite Ferrules, 450°C, 1/4 in. Fitting Reducing to 1/8 in. OD Tube	10/pk	392611757	-
	50/pk	392611757-50	
Graphite Ferrules, 450°C, 1/4 in. Fitting to 1/4 in. OD Tube	10/pk	392611758	-
	50/pk	392611758-50	
Graphite Ferrules, 450°C, 1/4 in. Fitting Reducing to 6 mm OD Tube	10/pk	392611759	-
	50/pk	392611759-50	
Graphite Ferrules, 450°C, 1/16 in. Fitting to 0.3 mm OD Column	10/pk	392611906	-
	50/pk	392611906-50	
Graphite Ferrules, 450°C, 1/16 in. Fitting to 0.4 mm OD Column	10/pk	392611907	-
	50/pk	392611907-50	
Graphite Ferrules, 450°C, 1/16 in. Fitting to 0.5 mm OD Column	10/pk	392611908	-
	50/pk	392611908-50	
Graphite Ferrules, 450°C, 1/16 in. Fitting to 0.8 mm OD Column	10/pk	392611909	-
	50/pk	392611909-50	

Short Graphite Ferrules, 450°C, Agilent (HP) Compatible

- Recommended for Use with Agilent (HP) 4890, 5890, 6890 Inlet Systems
- Stable to 450°C
- Does not stick to Glass or Fused Silica



Description	Qty	Part#	Price \$
Short Graphite Ferrules, 1/16 in. Fitting to 0.4 mm OD Column, Agilent(HP) Compatible	10/pk	392611914	-
	50/pk	392611914-50	
Short Graphite Ferrules, 1/16 in. Fitting to 0.5 mm OD Column, Agilent(HP) Compatible	10/pk	392611915	-
	50/pk	392611915-50	
Short Graphite Ferrules, 1/16 in. Fitting to 0.8 mm OD Column, Agilent (HP) Compatible	10/pk	392611916	-
	50/pk	392611916-50	

Graphite Ferrules

Jacketed Graphite Ferrules & Capillary Nuts

- Graphite Ferrules for Capillary Columns, jacketed in brass
- Capillary Nut to Fit Jacketed Ferrules
- Stable to 450°C
- Does not stick to Glass or Fused Silica
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Jacketed Ferrules for Varian 1078 Inj., Brass Jacket, 0.4 mm Graphite Ferrule	10/pk 50/pk	392611912 392611912-50	-
Jacketed Ferrules for Varian 1078 Inj., Brass Jacket, 0.5 mm Graphite Ferrule	10/pk 50/pk	392611913 392611913-50	-
Jacketed Ferrules for Varian 1078 Inj., Brass Jacket, 0.8 mm Graphite Ferrule	10/pk 50/pk	392611755 392611755-50	-
Capillary Nut for Varian 1078 Injector, Brass Column Scale Nut	1/pk 10/pk	392611910 392611911	-

Graphite O-Rings

- For Agilent and Varian 1177 Injectors
- Excellent thermal stability at injection port temperatures up to 450°C
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Graphite O-rings, 6.3 mm ID, to fit HP Split 6.3 mm OD liners	10/pk 50/pk	392611935 392611935-50	-
Graphite O-rings, 6.5 mm ID, Same as HP 5180-4173	10/pk 50/pk	392611930 392611930-50	-
Viton O-Rings 250°C One Size Fits Split/ 6.3 mm & Splitless/ 6.5 mm OD Liners	10/pk 50/pk	392611764 392611764-50	-
Graphite O-rings, 6.5 mm I.D. to Fit 1177 Injector, Glass Liners	10/pk 50/pk	392611940 392611940-50	-
Graphite O-Rings for Varian and Hp Liners, 450°C, 6.3 mm I.D. for Split Liners	10/pk 50/pk	392611761 392611761-50	-
Graphite O-Rings for Varian and HP Liners, 6.5 mm I.D. for Splitless Liners	10/pk 50/pk	392611762 392611762-50	-
Graphite O-Rings for Varian 1177 and HP Liners, 6.5 mm I.D.	10/pk 50/pk	392611918 392611918-50	-

Graphite Ferrules

Special Graphite Ferrule for Varian Liners, 450°C

- For Varian Split/Splitless 1075/1077/1078 Liners
- Stable to 450°C
- High Density Graphite
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Special 1/4 in. Graphite Ferrule for Varian Split/Splitless 1075/1077 Liner 394936200	10/pk	392611763	-
	50/pk	392611763-50	
Special 5 mm Graphite Ferrule for Varian Split/Splitless 1078 Inj. Liners 392534200	10/pk	392611919	-
	50/pk	392611919-50	

Capillary Graphite Ferrules for 1/16" Compression-Type Ferrules

- For Agilent Injectors & Detectors; 5890/6890/7890 GCs
- Stable to 450°C
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" x No Hole "Short"	No Hole	10/pk	32151	-
		50/pk	32151-50	
1/16" X 0.3 mm	0.1 mm	10/pk	32152	-
		50/pk	32152-50	
1/16" X 0.4 mm	0.2-0.25 mm	10/pk	32153	-
		50/pk	32153-50	
1/16" X 0.5 mm	0.32 mm	10/pk	32154	-
		50/pk	32154-50	
1/16" X 0.8 mm	0.53 mm	10/pk	32155	-
		50/pk	32155-50	
1/16" X 1.0 mm	0.65 mm	10/pk	32156	-
		50/pk	32156-50	

Short Graphite Ferrules HP Style

- For Agilent Injectors & Columns
- Stable to 450°C
- High Purity Graphite, Preferred for Capillary GC Use
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" X 0.4 mm	0.2-0.25 mm	10/pk	32160	-
		50/pk	32160-50	
1/16" X 0.5 mm	0.32 mm	10/pk	32161	-
		50/pk	32161-50	
1/16" X 0.8 mm	0.53 mm	10/pk	32162	-
		50/pk	32162-50	
1/16" X 1.0 mm	0.65 mm	10/pk	32163	-
		50/pk	32163-50	
1/16" X 1.2 mm	0.75 mm	10/pk	32164	-
		50/pk	32164-50	

Graphite Ferrules

Standard Graphite Capillary 1/16" Ferrules

- Stable to 450°C
- High Purity Graphite, Preferred for Capillary GC Use
- High Density Graphite
- Preconditioned to Eliminate Out-Gassing
- Does not stick to Glass or Fused Silica
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" x No Hole	No Hole	10/pk	32167	-
		50/pk	32167-50	
1/16" X 1/16"	1/16" TUBE O.D.	10/pk	32168	-
		50/pk	32168-50	
1/16" X 0.3 mm	0.1 mm	10/pk	32169	-
		50/pk	32169-50	
1/16" X 0.4 mm	0.2 - 0.25 mm	10/pk	32170	-
		50/pk	32170-50	
1/16" X 0.5 mm	0.32 mm	10/pk	32171	-
		50/pk	32171-50	
1/16" X 0.8 mm	0.45 - 0.53 mm	10/pk	32172	-
		50/pk	32172-50	
1/16" X 1.0 mm	0.65 mm	10/pk	32173	-
		50/pk	32173-50	
1/16" X 1.2 mm	0.75 mm	10/pk	32174	-
		50/pk	32174-50	

1/16" Long Graphite Capillary Column Ferrules

- Height = .150"
- Stable to 450°C
- Does not stick to Glass or Fused Silica
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" x No Hole	No Hole	10/pk	32188	-
		50/pk	32188-50	
1/16" X 1/16"	1/16" TUBE O.D.	10/pk	32189	-
		50/pk	32189-50	
1/16" X 0.4 mm	0.25 mm	10/pk	32190	-
		50/pk	32190-50	
1/16" X 0.5 mm	0.32 mm	10/pk	32191	-
		50/pk	32191-50	
1/16" X 0.8 mm	0.53 mm	10/pk	32192	-
		50/pk	32192-50	
1/16" X 1.0 mm	0.65 mm	10/pk	32193	-
		50/pk	32193-50	
1/16" X 1.2 mm	0.75 mm	10/pk	32194	-
		50/pk	32194-50	

Graphite Ferrules

1/16" Extra Long Graphite Capillary Column Ferrules

- Height = .157"
- Stable to 450°C
- High Purity/Density Graphite, Preferred for Capillary GC Use
- Preconditioned to Eliminate Out-Gassing
- Does not stick to Glass or Fused Silica
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" x No Hole	No Hole	10/pk	32178	-
		50/pk	32178-50	
1/16" X 1/16"	1/16" TUBE O.D.	10/pk	32179	-
		50/pk	32179-50	
1/16" X 0.4 mm	0.2 - 0.25 mm	10/pk	32180	-
		50/pk	32180-50	
1/16" X 0.5 mm	0.32 mm	10/pk	32181	-
		50/pk	32181-50	
1/16" X 0.8 mm	0.53 mm	10/pk	32182	-
		50/pk	32182-50	
1/16" X 1.0 mm	0.65 mm	10/pk	32183	-
		50/pk	32183-50	
1/16" X 1.2 mm	0.75 mm	10/pk	32184	-
		50/pk	32184-50	

1/16" Long Taper, Graphite Capillary Column Ferrules

- Height = .180"
- Stable to 450°C
- Contains No Binders that can Out-Gas or Absorb Analytes
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" x No Hole	No Hole	10/pk	32198	-
		50/pk	32198-50	
1/16" X 1/16"	1/16" TUBE O.D.	10/pk	32199	-
		50/pk	32199-50	
1/16" X 0.4 mm	0.25 mm	10/pk	32200	-
		50/pk	32200-50	
1/16" X 0.5 mm	0.32 mm	10/pk	32201	-
		50/pk	32201-50	
1/16" X 0.8 mm	0.53 mm	10/pk	32202	-
		50/pk	32202-50	
1/16" X 1.0 mm	0.65 mm	10/pk	32203	-
		50/pk	32203-50	
1/16" X 1.2 mm	0.75 mm	10/pk	32204	-
		50/pk	32204-50	

Graphite Ferrules

Two Hole Graphite 1/16" Ferrules

- Stable to 450°C
- High Purity Graphite, Preferred for Capillary GC Use
- High Density Graphite
- Does not stick to Glass or Fused Silica
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" X 0.4 mm (2-hole)	0.2 - 0.25 mm	10/pk	32207	-
		50/pk	32207-50	
1/16" X 0.5 mm (2-hole)	0.32 mm	10/pk	32208	-
		50/pk	32208-50	
1/16" X 0.8 mm (2-hole)	0.53 mm	10/pk	32209	-
		50/pk	32209-50	

Standard, Graphite Capillary & Reducing 1/8" Ferrules

- Stable to 450°C
- Preconditioned to Eliminate Out-Gassing
- Contains No Binders that can Out-Gas or Absorb Analytes
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" x No Hole	No Hole	10/pk	32215	-
		50/pk	32215-50	
1/8" X 1/8"	1/8" TUBE O.D.	10/pk	32216	-
		50/pk	32216-50	
1/8" X 1/16"	1/16" TUBE O.D.	10/pk	32217	-
		50/pk	32217-50	
1/8" X 0.4 mm	0.2 - 0.25 mm	10/pk	32218	-
		50/pk	32218-50	
1/8" X 0.5 mm	0.32 mm	10/pk	32219	-
		50/pk	32219-50	
1/8" X 0.8 mm	0.45-0.53 mm	10/pk	32220	-
		50/pk	32220-50	
1/8" X 1.0 mm	0.65 mm	10/pk	32221	-
		50/pk	32221-50	
1/8" X 1.2 mm	0.75 mm	10/pk	32222	-
		50/pk	32222-50	

Graphite Ferrules

1/8" Graphite Ferrule

- Length = 0.265"
- Stable to 450°C
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Does not stick to Glass or Fused Silica
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" x No Hole	No Hole	10/pk	32226	-
		50/pk	32226-50	
1/8" X 1/8"	1/8" TUBE O.D.	10/pk	32227	-
		50/pk	32227-50	
1/8" X 1/16"	1/16" TUBE O.D.	10/pk	32228	-
		50/pk	32228-50	
1/8" X 0.4 mm	0.25 mm	10/pk	32229	-
		50/pk	32229-50	
1/8" X 0.5 mm	0.32 mm	10/pk	32230	-
		50/pk	32230-50	
1/8" X 0.8 mm	0.53 mm	10/pk	32231	-
		50/pk	32231-50	
1/8" X 1.0 mm	0.65 mm	10/pk	32232	-
		50/pk	32232-50	
1/8" X 1.2 mm	0.75 mm	10/pk	32233	-
		50/pk	32233-50	

1/8" Graphite Ferrule (With Tail)

- Length = 0.300"
- Stable to 450°C
- High Density Graphite
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" X 1/16"	1/16" TUBE O.D.	10/pk	32237	-
		50/pk	32237-50	
1/8" X 0.4 mm	0.25 mm	10/pk	32238	-
		50/pk	32238-50	
1/8" X 0.5 mm	0.32 mm	10/pk	32239	-
		50/pk	32239-50	
1/8" X 0.8 mm	0.53 mm	10/pk	32240	-
		50/pk	32240-50	
1/8" X 1.0 mm	0.65 mm	10/pk	32241	-
		50/pk	32241-50	
1/8" X 1.2 mm	0.75 mm	10/pk	32242	-
		50/pk	32242-50	

Graphite Ferrules

1/8" Graphite Front Ferrules

- Length = 0.200"
- Stable to 450°C
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Does not stick to Glass or Fused Silica
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" X 1/8"	1/8" O.D. TUBE	10/pk	32246	-
		50/pk	32246-50	
1/8" X 1.2 mm	0.75 mm	10/pk	32247	-
		50/pk	32247-50	

1/8" Graphite Two Hole Ferrules

- Stable to 450°C
- High Purity Graphite, Preferred for Capillary GC Use
- High Density Graphite
- Preconditioned to Eliminate Out-Gassing
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" X 0.5 mm (2-hole)	0.32 mm	10/pk	32250	-
		50/pk	32250-50	
1/8" X 0.8 mm (2-hole)	0.53 mm	10/pk	32251	-
		50/pk	32251-50	

3/16" Graphite Ferrule

- Stable to 450°C
- Contains No Binders that can Out-Gas or Absorb Analytes
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
3/16" X 3/16"	3/16" TUBE O.D.	10/pk	32254	-
		50/pk	32254-50	

Graphite Ferrules

Standard, Capillary & Reducing 1/4" Graphite Ferrules

- Stable to 450°C
- High Density Graphite
- Preconditioned to Eliminate Out-Gassing
- Does not stick to Glass or Fused Silica
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/4" x No Hole	No Hole	10/pk	32257	-
		50/pk	32257-50	
1/4" X 1/4"	1/4" TUBE O.D.	10/pk	32258	-
		50/pk	32258-50	
1/4" X 1/8"	1/8" TUBE O.D.	10/pk	32259	-
		50/pk	32259-50	
1/4" X 1/16"	1/16" TUBE O.D.	10/pk	32260	-
		50/pk	32260-50	
1/4" X 3/16"	3/16" TUBE O.D.	10/pk	32261	-
		50/pk	32261-50	
1/4" X 0.4 mm	0.2 - 0.25 mm	10/pk	32262	-
		50/pk	32262-50	
1/4" X 0.5 mm	0.32 mm	10/pk	32263	-
		50/pk	32263-50	
1/4" X 0.8 mm	0.53 mm	10/pk	32264	-
		50/pk	32264-50	
1/4" X 1.0 mm	0.65 mm	10/pk	32265	-
		50/pk	32265-50	
1/4" X 1.2 mm	0.75 mm	10/pk	32266	-
		50/pk	32266-50	
1/4" X 4.0 mm	4.0 mm TUBE O.D.	10/pk	32267	-
		50/pk	32267-50	
1/4" X 6.0 mm	6.0 mm TUBE O.D.	10/pk	32268	-
		50/pk	32268-50	
1/4" X 6.0 mm DBL TAPER	6.0 mm TUBE O.D.	10/pk	32269	-
		50/pk	32269-50	

Graphite Ferrules

1/4" Front Graphite Ferrules

- Stable to 450°C
- High Density Graphite
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/4" X 1/4"	1/4" TUBE O.D.	10/pk	32272	-
		50/pk	32272-50	-
1/4" X 1/8"	1/8" TUBE O.D.	10/pk	32273	-
		50/pk	32273-50	-
1/4" X 6.0 mm	6.0 mm TUBE O.D.	10/pk	32274	-
		50/pk	32274-50	-

Large Graphite Ferrules

- Stable to 450°C
- Larger Ferrules for Large Tube Applications
- Does not stick to Glass or Fused Silica
- For High Temperature Applications



Description	Fits Column OD	Qty.	Part#	Price \$
6 mm	6 mm TUBE O.D.	10/pk	32277	-
		50/pk	32277-50	-
8 mm	8 mm TUBE O.D.	10/pk	32278	-
		50/pk	32278-50	-
10 mm	10 mm TUBE O.D.	10/pk	32279	-
		50/pk	32279-50	-
12 mm	12 mm TUBE O.D.	10/pk	32280	-
		50/pk	32280-50	-
3/8"	3/8" TUBE O.D.	10/pk	32281	-
		50/pk	32281-50	-
3/8"	No Hole	10/pk	32282	-
		50/pk	32282-50	-
1/2"	1/2" TUBE O.D.	10/pk	32283	-
		50/pk	32283-50	-
5/8"	5/8" TUBE O.D.	10/pk	32284	-
		50/pk	32284-50	-
3/4"	3/4" TUBE O.D.	10/pk	32285	-
		50/pk	32285-50	-
7/8"	7/8" TUBE O.D.	10/pk	32286	-
		50/pk	32286-50	-
1"	1" TUBE O.D.	10/pk	32287	-
		50/pk	32287-50	-
1.25"	1.25" TUBE O.D.	10/pk	32288	-
		50/pk	32288-50	-
1.50"	1.50" TUBE O.D.	10/pk	32289	-
		50/pk	32289-50	-

Graphite Ferrules

Mini Union MSUV, 100% Graphite Ferrules

- Stable to 450°C
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
0.5 mm ID	0.25- 0.32 mm	10/pk	32290	-
		50/pk	32290-50	-
0.8 mm ID	0.53 mm	10/pk	32291	-
		50/pk	32291-50	-

Carlo Erba, Graphite Ferrules

- Fit most Carlo Erba Instruments
- Stable to 450°C
- High Purity Graphite, Preferred for Capillary GC Use
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
0.5 mm ID	M5 NUT	10/pk	32294	-
		50/pk	32294-50	-
0.8 mm ID	M8 NUT	10/pk	32295	-
		50/pk	32295-50	-

Shimadzu, Graphite Ferrules

- 5mm Fit Shimadzu 17A GCs
- 1/16" Fits 17A, 2010, 2014 GCs
- Stable to 450°C
- Preconditioned to Eliminate Out-Gassing
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
5.0 mm	5.0 mm TUBE O.D.	10/pk	32298	-
		50/pk	32298-50	-
1/16" X 0.5 mm (2-Piece)	0.35 mm	10/pk	32299	-
		50/pk	32299-50	-
1/16" X 0.8 mm (2-Piece)	0.53 mm	10/pk	32300	-
		50/pk	32300-50	-
1/16" X 0.5 mm	0.35 mm	10/pk	32301	-
		50/pk	32301-50	-
1/16" x 0.8 mm	0.53 mm	10/pk	32302	-
		50/pk	32302-50	-

Graphite Ferrules

Graphite O-Rings/Sealing O-Rings

- Excellent thermal stability at injection port
- Temperature Stability to 450°C
- Contains No Binders that can Out-Gas or Absorb Analytes
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
6.35 mm ID/ 9.63 mm O.D.	6.35 mm	10/pk	32305	-
		50/pk	32305-50	-
6.52 MM ID/ 9.63 mm O.D.	6.52 mm	10/pk	32306	-
		50/pk	32306-50	-
1/16" Sealing O-Ring	1/16" TUBE O.D.	10/pk	32307	-
		50/pk	32307-50	-
1/8" Sealing O-Ring	1/8" TUBE O.D.	10/pk	32308	-
		50/pk	32308-50	-
1/4" Sealing O-Ring	1/4" TUBE O.D.	10/pk	32309	-
		50/pk	32309-50	-

Ultra Clean Graphite Ferrule, 450°C

- Temperature Programmed Conditioning at 400°C
- Fifty Programmed Ramp Ups in GC oven
- Stable to 450°C
- High Density Graphite
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Packaged in "Ultra Clean" Glass Bottles with Special Yellow "Keep Clean" Label



Description	Qty	Part#	Price \$
Ultra Clean 5mm Preconditioned Graphite Ferrules for Varian, Bruker & Agilent Chromatographs	2/pk	392534202	-
	10/pk	392534201	-

Custom products & bulk pricing available.
Email or fax us with your specifications for more information.

100% Polyimide (Vespel®) Ferrules

- 350° C Upper Temperature Limit. One Piece Ferrule Design
- May Bleed at Higher Temperatures
- Excellent Physical Properties 100% High Temperature Polyimide (Vespel®)
- Does not Cold Flow
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Polyimide (Vespel®) Ferrules, 350°C, 1/16 in. Fitting to No Hole (Blanks)	10/pk	392611766	-
	50/pk	392611766-50	
Polyimide (Vespel®) Ferrules, 350°C, 1/16 in. Fitting to 1/16 in. OD Tube	10/pk	392611765	-
	50/pk	392611765-50	
Polyimide (Vespel®) Ferrules, 350°C, 1/8 in. Fitting to No Hole (Blanks)	10/pk	392611769	-
	50/pk	392611769-50	
Polyimide (Vespel®) Ferrules, 350°C, 1/8 in. Fitting Reducing to 1/16 in. OD Tube	10/pk	392611767	-
	50/pk	392611767-50	
Polyimide (Vespel®) Ferrules, 350°C, 1/8 in. Fitting to 1/8 in. OD Tube	10/pk	392611768	-
	50/pk	392611768-50	
Polyimide (Vespel®) Ferrules, 350°C, 1/4 in. Fitting Reducing to 1/16 in. OD Tube	10/pk	392611770	-
	50/pk	392611770-50	
Polyimide (Vespel®) Ferrules, 350°C, 1/4 in. Fitting Reducing to 1/8 in. OD Tube	10/pk	392611771	-
	50/pk	392611771-50	
Polyimide (Vespel®) Ferrules, 350°C, 1/4 in. Fitting to 1/4 in. OD Tube	10/pk	392611772	-
	50/pk	392611772-50	
Polyimide (Vespel®) Ferrules, 350°C, 1/4 in. Fitting to No Hole (Blanks)	10/pk	392611774	-
	50/pk	392611774-50	

Capillary Ferrules for 1/16" Compression-Type Ferrules

- 100% Polyimide (Vespel®)
- For Agilent Injectors & Detectors; 5890/6890/7890 GCs
- Does not Cold Flow
- Packaged in "Ultra Clean" Glass Bottle



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" x No Hole "Short"	No Hole	10/pk	32000	-
		50/pk	32000-50	
1/16" X 0.3 mm	0.1 mm	10/pk	32001	-
		50/pk	32001-50	
1/16" X 0.4 mm	0.2 - 0.25 mm	10/pk	32002	-
		50/pk	32002-50	
1/16" X 0.5 mm	0.32 mm	10/pk	32003	-
		50/pk	32003-50	
1/16" X 0.8 mm	0.53 mm	10/pk	32004	-
		50/pk	32004-50	

Standard Capillary Ferrules

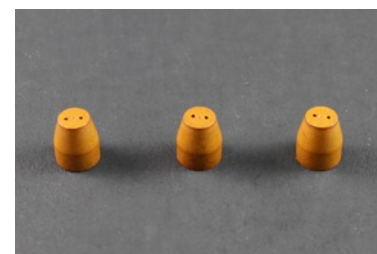
- 100% Polyimide (Vespel®)
- 350° C Upper Temperature Limit. One Piece Ferrule Design
- Excellent Physical Properties 100% High Temperature Polyimide (Vespel®)
- Does not Cold Flow
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" x No Hole	No Hole	10/pk	32005	-
		50/pk	32005-50	-
1/16" X 1/16"	1/16" TUBE O.D.	10/pk	32006	-
		50/pk	32006-50	-
1/16" X 0.3 mm	0.1 mm	10/pk	32007	-
		50/pk	32007-50	-
1/16" X 0.4 mm	0.2 - 0.25 mm	10/pk	32008	-
		50/pk	32008-50	-
1/16" X 0.5 mm	0.32 mm	10/pk	32009	-
		50/pk	32009-50	-
1/16" X 0.8 mm	0.45 - 0.53 mm	10/pk	32010	-
		50/pk	32010-50	-
1/16" X 1.0 mm	0.65 mm	10/pk	32011	-
		50/pk	32011-50	-
1/16" X 1.2 mm	0.75 mm	10/pk	32012	-
		50/pk	32012-50	-

Two Hole Capillary Ferrules

- 100% Polyimide (Vespel®)
- 350° C Upper Temperature Limit. One Piece Ferrule Design
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" X 0.4 mm (2-hole)	0.2 - 0.25 mm	10/pk	32015	-
		50/pk	32015-50	-
1/16" X 0.5 mm (2-hole)	0.32 mm	10/pk	32016	-
		50/pk	32016-50	-
1/16" X 0.8 mm (2-hole)	0.53 mm	10/pk	32017	-
		50/pk	32017-50	-

Standard, Capillary & Reducing 1/8" Ferrules

- 100% Polyimide (Vespe[®])
- 350° C Upper Temperature Limit. One Piece Ferrule Design
- Does not Cold Flow
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" x No Hole	No Hole	10/pk	32020	-
		50/pk	32020-50	
1/8" X 1/8"	1/8" TUBE O.D.	10/pk	32021	-
		50/pk	32021-50	
1/8" X 1/16"	1/16" TUBE O.D.	10/pk	32022	-
		50/pk	32022-50	
1/8" X 0.4 mm	0.2 -0.25 mm	10/pk	32023	-
		50/pk	32023-50	
1/8" X 0.5 mm	0.32 mm	10/pk	32024	-
		50/pk	32024-50	
1/8" X 0.8 mm	0.45 - 0.53 mm	10/pk	32025	-
		50/pk	32025-50	
1/8" X 1.0 mm	0.65 mm	10/pk	32026	-
		50/pk	32026-50	
1/8" X 1.2 mm	0.75 mm	10/pk	32027	-
		50/pk	32027-50	
1/8" X 2.4 mm	2.4 mm TUBE O.D.	10/pk	32028	-
		50/pk	32028-50	

Two Hole 1/8" Ferrules

- 100% Polyimide (Vespe[®])
- 350° C Upper Temperature Limit. One Piece Ferrule Design
- Excellent Physical Properties 100% High Temperature Polyimide (Vespe[®])
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" X 0.5 mm (2-hole)	0.32 mm	10/pk	32031	-
		50/pk	32031-50	
1/8" X 0.8 mm (2-hole)	0.53 mm	10/pk	32032	-
		50/pk	32032-50	

Standard, Capillary & Reducing 1/4" Ferrules

- 100% Polyimide (Vespel®)
- 350° C Upper Temperature Limit. One Piece Ferrule Design
- May Bleed at Higher Temperatures
- Excellent Physical Properties 100% High Temperature Polyimide (Vespel®)
- Does not Cold Flow
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/4" x No Hole	No Hole	10/pk	32035	-
		50/pk	32035-50	
1/4" X 1/4"	1/4" TUBE O.D.	10/pk	32036	-
		50/pk	32036-50	
1/4" X 1/8"	1/8" TUBE O.D.	10/pk	32037	-
		50/pk	32037-50	
1/4" X 1/16"	1/16" TUBE O.D.	10/pk	32038	-
		50/pk	32038-50	
1/4" X 3/16"	3/16" TUBE O.D.	10/pk	32039	-
		50/pk	32039-50	
1/4" X 0.4 mm	0.2 - 0.25 mm	10/pk	32040	-
		50/pk	32040-50	
1/4" X 0.5 mm	0.32 mm	10/pk	32041	-
		50/pk	32041-50	
1/4" X 0.8 mm	0.53 mm	10/pk	32042	-
		50/pk	32042-50	
1/4" X 1.0 mm	0.65 mm	10/pk	32043	-
		50/pk	32043-50	
1/4" X 1.2 mm	0.75 mm	10/pk	32044	-
		50/pk	32044-50	
1/4" X 4.0 mm	4.0 mm TUBE O.D.	10/pk	32045	-
		50/pk	32045-50	
1/4" X 6.0 mm	6.0 mm TUBE O.D.	10/pk	32046	-
		50/pk	32046-50	

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more information.

Teflon® Ferrules

- 250° C Upper Temperature Limit
- Non Sticking. One Piece Ferrule Design
- 100% Teflon® (PTFE). Chemically Inert
- Packaged in "Ultra Clean" Glass Bottles



Description	Qty	Part#	Price \$
Teflon® Ferrules, 250°C, 1/16 in. Fitting to 1/16 in. OD Tube	10/pk	392611775	-
	50/pk	392611775-50	
Teflon® Ferrules, 250°C, 1/16 in. Fitting to No Hole (Blanks)	10/pk	392611776	-
	50/pk	392611776-50	
Teflon® Ferrules, 250°C, 1/8 in. Fitting Reducing to 1/16 in. OD Tube	10/pk	392611777	-
	50/pk	392611777-50	
Teflon® Ferrules, 250°C, 1/8 in. Fitting to 1/8 in. OD Tube	10/pk	392611778	-
	50/pk	392611778-50	
Teflon® Ferrules, 250°C, 1/4 in. Fitting Reducing to 6 mm OD Tube	10/pk	392611783	-
	50/pk	392611783-50	
Teflon® Ferrules, 250°C, 1/4 in. Fitting to No Hole (Blanks)	10/pk	392611784	-
	50/pk	392611784-50	
Teflon® Ferrules, 250°C, 1/8 in. Fitting to No Hole (Blanks)	10/pk	392611779	-
	50/pk	392611779-50	
Teflon® Ferrules, 250°C, 1/4 in Fitting Reducing to 1/16 in. OD Tube	10/pk	392611780	-
	50/pk	392611780-50	
Teflon® Ferrules, 250°C, 1/4 in. Fitting Reducing to 1/8 in. OD Tube	10/pk	392611781	-
	50/pk	392611781-50	
Teflon® Ferrules, 250°C, 1/4 in. Fitting Reducing to 1/4 in. OD Tube	10/pk	392611782	-
	50/pk	392611782-50	

Capillary Ferrules for 1/16" Compression-Type Ferrules

- 100% Teflon® (PTFE)
- Standard Capillary Ferrules
- 250° C Upper Temperature Limit
- Non Sticking. One Piece Ferrule Design
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" x No Hole	No Hole	10/pk	32316	-
		50/pk	32316-50	
1/16" X 1/16"	1/16" TUBE O.D.	10/pk	32317	-
		50/pk	32317-50	
1/16" X 0.3 mm	0.1 mm	10/pk	32318	-
		50/pk	32318-50	
1/16" X 0.4 mm	0.2 - 0.25 mm	10/pk	32319	-
		50/pk	32319-50	
1/16" X 0.5 mm	0.32 mm	10/pk	32320	-
		50/pk	32320-50	
1/16" X 0.8 mm	0.45 - 0.53 mm	10/pk	32321	-
		50/pk	32321-50	
1/16" X 1.0 mm	0.65 mm	10/pk	32322	-
		50/pk	32322-50	
1/16" X 1.2 mm	0.75 mm	10/pk	=	-
		50/pk	32323-50	

1/16" Two Hole Capillary Ferrules

- 100% Teflon® (PTFE)
- 250° C Upper Temperature Limit
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/16" X 0.4 mm (2-hole)	0.2 - 0.25 mm	10/pk	32326	-
		50/pk	32326-50	
1/16" X 0.5 mm (2-hole)	0.32 mm	10/pk	32327	-
		50/pk	32327-50	
1/16" X 0.8 mm (2-hole)	0.53 mm	10/pk	32328	-
		50/pk	32328-50	

Standard, Capillary & Reducing 1/8" Ferrules

- 100% Teflon® (PTFE)
- 250° C Upper Temperature Limit
- Non Sticking. One Piece Ferrule Design
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" x No Hole	No Hole	10/pk	32331	-
		50/pk	32331-50	-
1/8" X 1/8"	1/8" TUBE O.D.	10/pk	32332	-
		50/pk	32332-50	-
1/8" X 1/16"	1/16" TUBE O.D.	10/pk	32333	-
		50/pk	32333-50	-
1/8" X 0.4 mm	0.2 - 0.25 mm	10/pk	32334	-
		50/pk	32334-50	-
1/8" X 0.5 mm	0.32 mm	10/pk	32335	-
		50/pk	32335-50	-
1/8" X 0.8 mm	0.45 - 0.53 mm	10/pk	32336	-
		50/pk	32336-50	-
1/8" X 1.0 mm	0.65 mm	10/pk	32337	-
		50/pk	32337-50	-
1/8" X 1.2 mm	0.75 mm	10/pk	32338	-
		50/pk	32338-50	-

Two Hole 1/8" Ferrules

- 100% Teflon® (PTFE)
- 250° C Upper Temperature Limit
- Non Sticking. One Piece Ferrule Design
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/8" X 0.5 mm (2-hole)	0.32 mm	10/pk	32341	-
		50/pk	32341-50	-
1/8" X 0.8 mm (2-hole)	0.53 mm	10/pk	32342	-
		50/pk	32342-50	-

Teflon® Ferrules

Standard, Capillary & Reducing 1/4" Ferrules

- 100% Teflon® (PTFE)
- 250° C Upper Temperature Limit
- Non Sticking. One Piece Ferrule Design
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
1/4" x No Hole	No Hole	10/pk	32345	-
		50/pk	32345-50	-
1/4" X 1/4"	1/4" TUBE O.D.	10/pk	32346	-
		50/pk	32346-50	-
1/4" X 1/8"	1/8" TUBE O.D.	10/pk	32347	-
		50/pk	32347-50	-
1/4" X 1/16"	1/16" TUBE O.D.	10/pk	32348	-
		50/pk	32348-50	-
1/4" X 3/16"	3/16" TUBE O.D.	10/pk	32349	-
		50/pk	32349-50	-
1/4" X 0.4 mm	0.2 - 0.25 mm	10/pk	32350	-
		50/pk	32350-50	-
1/4" X 0.5 mm	0.32 mm	10/pk	32351	-
		50/pk	32351-50	-
1/4" X 0.8 mm	0.53 mm	10/pk	32352	-
		50/pk	32352-50	-
1/4" X 1.0 mm	0.65 mm	10/pk	32353	-
		50/pk	32353-50	-
1/4" X 1.2 mm	0.75 mm	10/pk	32354	-
		50/pk	32354-50	-
1/4" X 4.0 mm	4.0 mm TUBE O.D.	10/pk	32355	-
		50/pk	32355-50	-
1/4" X 6.0 mm	6.0 mm TUBE O.D.	10/pk	32356	-
		50/pk	32356-50	-

Large ID Ferrules

- 100% Teflon® (PTFE)
- 250° C Upper Temperature Limit
- Packaged in "Ultra Clean" Glass Bottles



Description	Fits Column ID	Qty.	Part#	Price \$
3/8" x 3/8"	3/8" TUBE O.D.	10/pk	32359	-
		50/pk	32359-50	-
3/8" x No Hole	No Hole	10/pk	32360	-
		50/pk	32360-50	-

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Specialty Ferrules

Specialty Ferrules

- Special Application Ferrules
- Available In Polyimide, Polyimide/Graphite and Brass
- Fits Some Varian & Bruker GC's

Specialty 60% Polyimide (Vespel®) /40% Graphite Ferrules

- Stable to 400°C
- Minimal Torque Required to Seal
- Reusable, One-piece Design, Precision Drilled
- Excellent for Vacuum & High Pressure Applications
- Packaged in "Ultra Clean" Glass Bottles



Description	I.D.	Qty.	Part#	Price \$
1/16" 60% Polyimide (Vespel®)/40% Graphite, 0.145"-0.150" Height	0.048"-0.050"	10/pk	DY50502500-10	-

Specialty Brass Ferrules

- To Fit Special Varian/Bruker/Agilent Fittings
- High Temperature Rating



Description	I.D.	O.D.	Qty.	Part#	Price \$
Brass, 40° Angle, 0.160" Height	0.050"	0.246"	10/pk	393753801-10	-

Specialty 100% Polyimide (Vespel®) Ferrules

- 350° C Upper Temperature Limit. One Piece Ferrule Design
- May Bleed at Higher Temperatures
- Excellent Physical Properties 100% High Temperature Polyimide (Vespel®)
- Does not Cold Flow
- Packaged in "Ultra Clean" Glass Bottles



Description	I.D.	O.D.	Qty.	Part#	Price \$
Vaporizer, 100% Polyimide (Vespel®), 20° Angle	0.198" - 0.200"	0.3325"	10/pk	393733901-10	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

GC Purifiers

Fit over 80 different models of Gas Chromatographs

- ♦ Agilent Compatible
- ♦ Beckman
- ♦ Bruker
- ♦ Carlo Erba
- ♦ Chrompack
- ♦ CTC Analytics
- ♦ Dani
- ♦ Dynatech
- ♦ Gilson
- ♦ Hewlett Packard
- ♦ Hitachi
- ♦ Merck
- ♦ Perkin-Elmer
- ♦ Pharmacia
- ♦ Shimadzu
- ♦ Siemens
- ♦ Spark
- ♦ Spectra-Physics
- ♦ Varian

We offer several types of purifiers for removal of moisture, hydrocarbon, oxygen, and other chemicals from carrier gases. All have been proven cost effective in preventing column degradation, eliminating baseline drift and maximizing the accuracy of analytical data. They have been designed for optimum rate and breakthrough capacity. For best overall results in contaminant removal they should be used in combination.

Hydrocarbon/Water Gas Purifier

- Conditions eight cylinders of 99.999% purity (200 ft³/ea) to less than 1 ppm Hydrocarbon and Water.
- Pressure rating : 250 PSI
- 1/8" Brass Fittings
- Volume: 120cc Size: 1.3" OD x 11" L
- Spun Aluminum Chamber



Description	Old Varian Liner #	Qty	Part#	Price \$
Hydrocarbon/Water Gas Purifier	03-949862-00	1/pk	394986200	-
		5/pk	394986200-5	

Oxygen Gas Purifier

- Conditions four cylinders of 99.999% purity (200 ft³/ea) to less than 1 ppm O₂.
- Pressure rating : 250 PSI
- 1/8" Brass Fittings
- Volume: 120cc Size: 1.3" OD x 11" L
- Spun Aluminum Chamber



Description	Old Varian Liner #	Qty	Part#	Price \$
Oxygen Gas Purifier	03-949770-02	1/pk	394977002	-
		5/pk	394977002-5	

Hydrocarbon/Water Gas Purifier w/ Moisture Indicator

- Moisture indicator changes color when saturated
- Removes Moisture & Hydrocarbons
- Made from Clear Lexan®
- 1/8" Brass Fitting
- Volume: 200cc Size: 2" OD x 10.25" L
- Pressure Rating: 100 PSI
- Removes: H₂O, HCl, SO₂, NO₂, H₂S, CO₂, Oil, & Small Aliphatics



Description	Qty	Part#	Price \$
Hydrocarbon/Water Gas Purifier w/ Moisture Indicator	1/pk	30000	-
	5/pk	30000-5	

Pencil Filters

- Removes moisture and hydrocarbons
- Usable in small areas
- 1/8" Brass Fittings
- Aluminum chamber
- Various lengths available
- Custom materials available



Description	Qty	Part#	Price \$
Filter, 4.81 in., Clear, Flow Module (Moisture/Hydrocarbons)	1/pk	391713401	-
	5/pk	391713401-5	-
Filter, 4.81 in., Gold, Flow Module (Hydrocarbons)	1/pk	391713402	-
	5/pk	391713402-5	-
Filter, 2.02 in., Clear, Flow Module, Short (Hydrocarbons)	1/pk	391895901	-
	5/pk	391895901-5	-
Filter, 1.62 in., Gold, Flow Module (Moisture/Hydrocarbons)	1/pk	391895902	-
	5/pk	391895902-5	-

Custom products & bulk pricing available.
Email or fax us with your specifications for more information.

GcLite™ High Capacity Gas Purifiers

Fits over 80 different models of Gas Chromatographs

- ♦ Agilent Compatible
- ♦ Beckman
- ♦ Bruker
- ♦ Carlo Erba
- ♦ Chrompack
- ♦ CTC Analytics
- ♦ Dani
- ♦ Dynatech
- ♦ Gilson
- ♦ Hewlett Packard
- ♦ Hitachi
- ♦ Merck
- ♦ Perkin-Elmer
- ♦ Pharmacia
- ♦ Shimadzu
- ♦ Siemens
- ♦ Spark
- ♦ Spectra-Physics
- ♦ Varian

Hydrocarbon Gas Purifier

- Conditions more than ten cylinders of 99.999% purity (200 ft³/ea) to less than 1 ppm Hydrocarbon
- Spherical high capacity materials
- Pressure rating: 250 PSI
- 1/8" Brass Fittings
- Volume: 120cc Size: 1.30" OD x 11.0" L
- Spun Aluminum Chamber



Description	Qty	Part#	Price \$
Hydrocarbon Gas Purifier	1/pk	30001	-
	5/pk	30001-5	-

H₂O Gas Purifier

- Conditions more than ten cylinders of 99.999% purity (200 ft³/ea) to less than 1 ppm Water
- Spherical high capacity materials
- Pressure rating: 250 PSI
- 1/8" Brass Fittings
- Volume: 120cc Size: 1.30" OD x 11.0" L
- Spun Aluminum Chamber



Description	Qty	Part#	Price \$
100% H ₂ O Gas Purifier	1/pk	30002	-
	5/pk	30002-5	-

H₂O/Hydrocarbon Gas Purifier

- Conditions more than ten cylinders of 99.999% purity (200 ft³/ea) to less than 1 ppm Water and Hydrocarbon
- Spherical high capacity materials
- Pressure rating: 250 PSI
- 1/8" Brass Fittings
- Volume: 120cc Size: 1.30" OD x 11.0" L
- Spun Aluminum Chamber



Description	Qty	Part#	Price \$
H ₂ O/Hydrocarbon Gas Purifier	1/pk	30003	-
	5/pk	30003-5	-

Oxygen/Hydrocarbon Gas Purifier

- Conditions six cylinders of 99.999% purity (200 ft³/ea) to less than 1 ppm O₂ and Hydrocarbon
- Spherical high capacity materials
- Pressure rating: 250 PSI
- 1/8" Brass Fittings
- Volume: 120cc Size: 1.30" OD x 11.0" L
- Spun Aluminum Chamber



Description	Qty	Part#	Price \$
Oxygen/Hydrocarbon Gas Purifier	1/pk	30004	-
	5/pk	30004-5	-

Oxygen/H₂O Gas Purifier

- Conditions five cylinders of 99.999% purity (200 ft³/ea) to less than 1 ppm O² and H₂O
- Spherical high capacity materials
- Pressure rating: 250 PSI
- 1/8" Brass Fittings
- Volume: 120cc Size: 1.30" OD x 11.0" L
- Spun Aluminum Chamber



Description	Qty	Part#	Price \$
Oxygen/H ₂ O Gas Purifier	1/pk	30005	-
	5/pk	30005-5	-

Oxygen Gas Purifier

- Conditions six cylinders of 99.999% purity (200 ft³/ea) to less than 1 ppm O²
- Spherical high capacity materials
- Pressure rating: 250 PSI
- 1/8" Brass Fittings
- Volume: 120cc Size: 1.30" OD x 11.0" L
- Spun Aluminum Chamber



Description	Qty	Part#	Price \$
100% O ₂ Gas Purifier	1/pk	30006	-
	5/pk	30006-5	-

Hydrocarbon/Water Gas Purifier w/ Moisture Indicator

- Moisture indicator changes color when saturated
- Removes Moisture & Hydrocarbons
- Made from Clear Lexan®
- Spherical high capacity materials
- 1/8" Brass Fitting
- Volume: 200cc Size: 2" OD x 10.25" L
- Pressure Rating: 100 PSI
- Removes: H₂O, HCl, SO₂, NO₂, H₂S, CO₂, Oil, & Small Aliphatics



Description	Qty	Part#	Price \$
Hydrocarbon/Water Gas Purifier w/ Moisture Indicator	1/pk	30007	-
	5/pk	30007-5	-

Hydrocarbon Gas Purifier

- Removes Hydrocarbons
- Made from Clear Lexan®
- Spherical high capacity materials
- 1/8" Brass Fitting
- Volume: 200cc Size: 2" OD x 10.25" L
- Pressure Rating: 100 PSI
- Removes: HCl, SO₂, NO₂, H₂S, CO₂, Oil, & Small Aliphatics



Description	Qty	Part#	Price \$
Hydrocarbon Gas Purifier	1/pk	30008	-
	5/pk	30008-5	-

H₂O Gas Purifier

- Removes Moisture
- Made from Clear Lexan®
- Spherical high capacity materials
- 1/8" Brass Fitting
- Volume: 200cc Size: 2" OD x 10.25" L
- Pressure Rating: 100 PSI
- Removes: H₂O, HCl, SO₂, NO₂, H₂S, CO₂, Oil, & Small Aliphatics



Description	Qty	Part#	Price \$
H ₂ O Gas Purifier	1/pk	30009	-
	5/pk	30009-5	-

H₂O Gas Purifier w/ Moisture Indicator

- Moisture indicator changes color when saturated
- Removes Moisture
- Made from Clear Lexan®
- Spherical high capacity materials
- 1/8" Brass Fitting
- Volume: 200cc Size: 2" OD x 10.25" L
- Pressure Rating: 100 PSI
- Removes: H₂O, HCl, SO₂, NO₂, H₂S, CO₂, Oil, & Small Aliphatics



Description	Qty	Part#	Price \$
H ₂ O Gas Purifier w/ Moisture Indicator	1/pk	30010	-
	5/pk	30010-5	-

Hydrocarbon Large Gas Purifier

- Lexan® construction
- Removes hydrocarbons
- Spherical high capacity materials
- 1/8" Brass Fitting
- Volume: 825cc Size: 3.75" OD x 7.25" L
- Pressure Rating: 50 PSI



Description	Qty	Part#	Price \$
Hydrocarbon Large Purifier	1/pk	30011	-
	5/pk	30011-5	-

H₂O Large Gas Purifier

- Lexan® construction
- Removes moisture
- Spherical high capacity materials
- 1/8" Brass Fitting
- Volume: 825cc Size: 3.75" OD x 7.25" L
- Pressure Rating: 50 PSI



Description	Qty	Part#	Price \$
H ₂ O Large Gas Purifier	1/pk	30012	-
	5/pk	30012-5	-

H₂O Large Gas Purifier w/ Moisture Indicator

- Lexan® construction
- Removes moisture
- Moisture indicator changes color when saturated
- Spherical high capacity materials
- 1/8" Brass Fitting
- Volume: 825cc Size: 3.75" OD x 7.25" L
- Pressure Rating: 50 PSI



Description	Qty	Part#	Price \$
H ₂ O Large Purifier w/ Moisture Indicator	1/pk	30013	-
	5/pk	30013-5	-

Moisture/Hydrocarbon Large Gas Purifier w/ Moisture Indicator

- Lexan® construction
- Removes moisture and hydrocarbons
- Moisture indicator changes color when saturated
- Spherical high capacity materials
- 1/8" Brass Fitting
- Volume: 825cc Size: 3.75" OD x 7.25" L
- Pressure Rating: 50 PSI



Description	Qty	Part#	Price \$
Moisture/Hydrocarbon Large Gas Purifier w/ Moisture Indicator	1/pk	30014	-
	5/pk	30014-5	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

Specialty Gas Purifiers

Specialty Gas Purifiers

We offer several specialty purifiers for removal of Water, Hydrogen Chloride, Sulphur Dioxide, Hydrogen Sulphide, Carbon Dioxide, Hydrocarbons, Oil, and Small Aliphatics. They have been designed for optimum rate and breakthrough capacity.

Indicating Moisture Removal Tube w/ Bracket

- Teflon tube construction w/ aluminum ends, bracket, & Teflon tubing
- Indicating moisture material
- For small areas where moisture is a concern
- Ambient applications
- Teflon Inlet Tube - 0.085" OD
- Pressure Rating: 20 PSI
- Volume: 3.75cc Size: 0.500" OD x 3.25" L



Description	Qty	Part#	Price \$
Indicating Moisture Removal Tube w/ Bracket	1/pk	30015	-
	5/pk	30015-5	

Indicating Moisture Removal Tube

- Teflon tube construction w/ aluminum ends & Teflon tubing
- Indicating moisture material
- For small areas where moisture is a concern
- Teflon Inlet Tube - 0.085" OD
- Pressure Rating: 20 PSI
- Volume: 3.75cc Size: 0.500" OD x 3.25" L



Description	Qty	Part#	Price \$
Indicating Moisture Removal Tube	1/pk	30016	-
	5/pk	30016-5	

Hydrocarbon/Water Gas Purifier w/ Moisture Indicator

- Moisture indicator changes color when saturated
- Removes Moisture & Hydrocarbons
- Made from Clear Lexan®
- 1/8" Brass Fitting
- Pressure Rating: 100 PSI
- Volume: 200cc Size: 2" OD x 10.25" L
- Removes: H₂O, HCl, SO₂, NO₂, H₂S, CO₂, Oil, & Small Aliphatics



Description	Qty	Part#	Price \$
Hydrocarbon/Water Gas Purifier w/ Moisture Indicator	1/pk	30017	-
	5/pk	30017-5	

Specialty Gas Purifiers

Indicating Moisture & Hydrocarbon Removal Purifier

- Lexan® construction
- Removes moisture and hydrocarbons
- Moisture indicator changes color when saturated
- Spherical high-capacity materials
- Chrome-plated brass quick disconnect couplings to connect 1/4" tubes
- Volume: 250cc Size: 2" OD x 8.5" L
- Pressure Rating: 100 PSI
- Other Fitting options available



Description	Qty	Part#	Price \$
Indicating Moisture & Hydrocarbon Removal Purifier	1/pk	30018	-
	5/pk	30018-5	-

Hydrocarbon/Moisture Removal w/ Indicating Media

- Lexan® construction
- Removes moisture and hydrocarbons
- Moisture indicator changes color when saturated
- Chrome-plated brass quick disconnect couplings to connect 1/4" tubes
- Volume: 250cc Size: 2" OD x 8.5" L
- Pressure Rating: 100 PSI
- Other fitting options available



Description	Qty	Part#	Price \$
Indicating Moisture & Hydrocarbon Removal Purifier	1/pk	30019	-
	5/pk	30019-5	-

Hydrocarbon/Moisture Purifier

- Lexan® construction
- Removes moisture and hydrocarbons
- Moisture indicator changes color when saturated
- Nickel-plated Brass Push to connect fitting: Fits 1/4" Tubing
- Volume: 275cc Size: 2" OD x 9" L
- Pressure Rating: 100 PSI
- Other Fitting options available



Description	Qty	Part#	Price \$
Hydrocarbon/Moisture Purifier	1/pk	30020	-
	5/pk	30020-5	-

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Email or fax us with your specifications for
more information.

Specialty Gas Purifiers

Ultra Fine Moisture/Hydrocarbon/Indicating Purifier

- Lexan® construction
- Removes moisture and hydrocarbons
- Moisture indicator changes color when saturated
- Pre & Post Ultra Fine Balston Particulate Filters
- Removes 99.9999% of all particles over 0.1 micrometer
- Anarak o-ring clip-lok fittings
- Square ends for mounting
- Volume: 625cc Size: 3.25" OD x 8.5" L
- Pressure Rating: 20 PSI
- Other Fitting options available
- Removes: H₂O, HCl, SO₂, NO₂, H₂S, CO₂, Oil, & Small Aliphatics



Description	Qty	Part#	Price \$
Ultra Fine Moisture/Hydrocarbon/Indicating Purifier	1/pk	30021	-
	5/pk	30021-5	

Moisture/Hydrocarbon Large Purifier w/ Ultra Fine Post Particulate Filter

- Lexan® construction
- Removes moisture and hydrocarbons
- Moisture indicator changes color when saturated
- Ultra fine Balston particulate filter on outlet
- Removes 99.99% of all particles over 0.1 micrometer
- Inlet/Outlet Teflon Tubing
- Volume: 825cc Size: 3.75" OD x 7.25" L
- Pressure Rating: 20 PSI
- Other Fitting options available
- Removes: H₂O, HCl, SO₂, NO₂, H₂S, CO₂, Oil, & Small Aliphatics



Description	Qty	Part#	Price \$
Moisture/Hydrocarbon Large Purifier w/ Ultra-Fine Post Particulate Filter	1/pk	30022	-
	5/pk	30022-5	

Moisture/Hydrocarbon Jumbo Purifier w/ Ultra-Fine Post Particulate Filter

- Lexan® construction
- Removes moisture and hydrocarbons
- Moisture indicator changes color when saturated
- Ultra Fine Balston Particulate Filter on outlet
- Removes 99.99% of all particles over 0.1 micrometer
- Inlet/Outlet Teflon Tubing
- Volume: 1650cc Size per filter: 3.75" OD x 7.25" L (Dual Filters)
- Pressure Rating: 20 PSI
- Other Fitting options available
- Removes: H₂O, HCl, SO₂, NO₂, H₂S, CO₂, Oil, & Small Aliphatics



Description	Qty	Part#	Price \$
Moisture/Hydrocarbon Jumbo Purifier w/ Ultra-Fine Post Particulate Filter	1/pk	30023	-
	5/pk	30023-5	

Autosampler Vials

Fit over 80 different models of Gas & Liquid Chromatographs

- ♦ Agilent Compatible
- ♦ Beckman
- ♦ Bruker
- ♦ Carlo Erba
- ♦ Chrompack
- ♦ CTC Analytics
- ♦ Dani
- ♦ Dynatech
- ♦ Gilson
- ♦ Hewlett Packard
- ♦ Hitachi
- ♦ Merck
- ♦ Perkin-Elmer
- ♦ Pharmacia
- ♦ Shimadzu
- ♦ Siemens
- ♦ Spark
- ♦ Spectra-Physics
- ♦ Varian

Reference Chart

* Refer to Reference Letters on the left side of the following pages for the proper vial to fit your instrument

Instrument Brand & Model	REFERENCE LETTER A	REFERENCE LETTER B	REFERENCE LETTER C	REFERENCE LETTER D	REFERENCE LETTER E	REFERENCE LETTER N	REFERENCE LETTER O	REFERENCE LETTER P
Agilent (HP) 1042, 1080, 1082, 1084	X		X					
Agilent (HP) 1050, 1090(LC), 1100, 1200	X		X	X	X			
Agilent (HP) 1100 Well Plate/ Nano Flow								
Agilent (HP) 1200 Well Plate/ SL Plus	X	X	X	X	X			
Agilent (HP) 5890, 6890, 7670A	X		X					
Agilent (HP) 7671 A, 7673 A/B, 8042	X		X					
Agilent (HP) 6850 (22 Pos. Tray)						X		
Agilent (HP) 7693A	X	X	X	X	X	X	X	
Agilent (HP) 7673A, 7683A	X		X	X	X			
Agilent (HP) 7985, 5880, 5890	X		X	X	X			
Agilent (HP) 6850 (27 Pos. Tray), 6890	X		X	X	X			
Agilent (HP) CTCHTS+HTCPAL+CTCGCPAL	X		X	X	X			
Beckman 501, 502, 502E, 507, 507E	X	X	X	X	X			
Beckman Marathon Promis	X	X	X	X	X			
Beckman Triathlon (Standard Tray)	X	X	X	X	X			
Carlo Erba 8000, AS 800	X	X	X	X	X			
Carlo Erba AS100, AS200LC, AS300	X	X	X	X	X		X	
Carlo Erba AS200, AS200S	X	X	X	X	X			
Carlo Erba AS 800 (42 & 60 Vial Tray)	X	X	X	X	X			
Carlo Erba 205 Series, 300 Series	X	X	X	X	X	X		X
Carlo Erba AS V42, AS105	X		X					
Chrompack CP-9010 & CP-910, 911, 912	X	X	X	X	X			
Chrompack CP-940, 941	X		X					
CTC Analytics A105S	X		X					
Danials 39.80	X		X					
Dynatech (42 & 60 Vial Trays)	X		X					
Finnigan A200S	X	X	X	X	X	X		
Gilson Aspec, Asted	X		X					
Gilson Rack 30P	X	X	X	X	X			
Hitachi AS2000, AS4000	X	X	X	X				
Hitachi AS6000, S6551		X		X				



12 x 32mm, 2mL Crimp Top Standard Opening Glass & Polypropylene Vials & Kits (Clear & Amber)



12 x 32mm, 2mL, 8-425 Screw Top Standard Opening Glass & Polypropylene Vials & Kits (Clear & Amber)



12 x 32mm, 2mL Crimp Top Wide Opening Glass Vials & Kits (Clear & Amber)



12 x 32mm, 2mL, 9mm Screw Top Wide Opening Glass Vials & Kits (Clear & Amber)



12 x 32mm, 2mL Snap Top Wide Opening Glass Vials & Kits (Clear & Amber)



15 x 45mm, 4mL Screw Top Glass Vials & Kits (Clear & Amber) 13-425 Screw



8 x 40mm, 1mL Push-in Cap Glass & Polypropylene Vials



12 x 32mm, 2mL Screw Top Wide, 10-425 Screw Opening Glass Vials & Kits (Clear & Amber)

Reference Chart

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Instrument Brand & Model	REFERENCE LETTER A	REFERENCE LETTER B	REFERENCE LETTER C	REFERENCE LETTER D	REFERENCE LETTER E	REFERENCE LETTER N	REFERENCE LETTER O	REFERENCE LETTER P
Jasco AS-851, AS-950		X		X				
Merck AS2000	X	X	X	X				
Merck AS4000	X		X					
Perkin-Elmer 2000, 8300, B2000		X		X				
Perkin-Elmer 400, 420B, 4900	X		X					
Perkin-Elmer Ai-1 (42 vial tray)	X		X		X			
Perkin-Elmer AS2000, AS2000B	X		X		X			
Perkin-Elmer AS300, AS8300 Autosystem	X		X		X			
Perkin-Elmer AS 100, AS 1 GOB		X		X				
Perkin-Elmer AS100, AS100B	X		X		X			
Perkin-Elmer AS200, AS300		X		X				
Perkin-Elmer Autosystem	X		X					
Perkin-Elmer Integral 4000 (42 vial tray)	X		X					
Perkin-Elmer ISS-100		X		X				
Perkin-Elmer ISS-100 (42 Vial Tray)	X		X					
Perkin-Elmer Series 200 (205 Vial Tray)	X		X		X			X
Perkin-Elmer ISS-200 (42 Vial Tray)	X		X					
Perkin-Elmer ISS-225 (205 Vial Tray)	X		X		X			X
Perkin-Elmer ISS-225 (60 & 100 Vial Trays)	X		X		X			X
Perkin-Elmer LC30		X		X				
Perkin-Elmer LC600 (60 vial tray)	X	X		X				
Perkin-Elmer Clarus 400, 500, 600	X		X		X			
Pharmacia 2157-010	X	X	X	X	X			
Shimadzu SIL-2AS, SIL-6A	X		X	X	X	X		X
Shimadzu AOC-5000	X		X	X	X			
Shimadzu SIL-6A		X		X				
Shimadzu LC 20A	X	X	X	X	X	X		X
Shimadzu SIL-6B, SIL-9A	X	X	X	X	X			
Siemens AS200, AS32	X		X					
Spark Midas, Marathon, Promis	X	X	X	X	X			
Spark SPH 125, Triathalon	X		X					



12 x 32mm, 2mL Crimp Top Standard Opening Glass & Polypropylene Vials & Kits (Clear & Amber)



12 x 32mm, 2mL, 8-425 Screw Top Standard Opening Glass & Polypropylene Vials & Kits (Clear & Amber)



12 x 32mm, 2mL Crimp Top Wide Opening Glass Vials & Kits (Clear & Amber)



12 x 32mm, 2mL, 9mm Screw Top Wide Opening Glass Vials & Kits (Clear & Amber)



12 x 32mm, 2mL Snap Top Wide Opening Glass Vials & Kits (Clear & Amber)



15 x 45mm, 4mL Screw Top Glass Vials & Kits (Clear & Amber) 13-425 Screw



8 x 40mm, 1mL Push-in Cap Glass & Polypropylene Vials



12 x 32mm, 2mL Screw Top Wide, 10-425 Screw Opening Glass Vials & Kits (Clear & Amber)

Reference Chart

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Instrument Brand & Model	REFERENCE LETTER A	REFERENCE LETTER B	REFERENCE LETTER C	REFERENCE LETTER D	REFERENCE LETTER E	REFERENCE LETTER N	REFERENCE LETTER O	REFERENCE LETTER P
Spectra-Physics 7110, 8110	X		X					
Spectra-Physics 8875, 8880	X	X	X	X	X			
Thermo Fisher Scientific	X	X	X	X	X			
Varian Prostar 400 (Std. 96 Pos. Tray)	X	X	X	X	X			X
Varian Prostar 410 (Large Cap 96 Pos Tray)	X	X	X	X	X			X
Varian Prostar 410 (Std. 48 Pos. Tray)	X	X	X	X	X			X
Varian Prostar 420 (Std. 96 Pos. Tray)	X	X	X	X	X		X	X
Varian Prostar 420 (LSV 72 Pos. Tray)						X		
Varian Prostar 430 (48 Pos. Tray)	X	X	X	X	X			
Varian 8000, 8100	X	X	X	X	X			
Varian 8200	X	X	X	X	X			X
Varian 8035		X		X				
Varian CP-910, CP-911, CP-912	X	X	X	X	X			
Varian CP-940, CP-941	X		X		X			
Varian 8400 (100 Pos.), 8410	X	X	X	X	X			
Varian Combi PAL & GC PAL (98 Pos.)	X		X	X	X			
Varian Combi PAL SPME Mode (98 Pos.)	X		X	X	X			
Varian LC9100/9095/9090	X		X	X	X			
Varian Vista		X		X				
Varian CP 9010	X	X	X	X	X			
Varian Marathon Basic (98 Pos. Tray)	X	X	X	X	X			
Varian CP-8410/8034/8035/8100/8200	X	X	X		X			
Varian CP-9095/9100/920-LC/940-LC	X	X	X		X			
Waters Acquity Sample Organizer	X		X	X	X			
Waters Acquity, CapLC, Nano	X		X	X	X			
Waters Acquity UPLC Systems				X		X		
Waters 2767, 2707, 2777	X	X	X					
Waters WISP (48 Pos.)						X	X	
Waters WISP (96 Pos), 717, 96 Pos Carousel							X	
Waters Alliance HT System	X		X	X	X			X
Waters Alliance 2790, 2795, 2690, 2695	X		X	X	X			X
Waters Alliance GPC 2000						X		



12 x 32mm, 2mL Crimp Top Standard Opening Glass & Polypropylene Vials & Kits (Clear & Amber)



12 x 32mm, 2mL, 8-425 Screw Top Standard Opening Glass & Polypropylene Vials & Kits (Clear & Amber)



12 x 32mm, 2mL Crimp Top Wide Opening Glass Vials & Kits (Clear & Amber)



12 x 32mm, 2mL, 9mm Screw Top Wide Opening Glass Vials & Kits (Clear & Amber)



12 x 32mm, 2mL Snap Top Wide Opening Glass Vials & Kits (Clear & Amber)



15 x 45mm, 4mL Screw Top Glass Vials & Kits (Clear & Amber) 13-425 Screw



8 x 40mm, 1mL Push-in Cap Glass & Polypropylene Vials



12 x 32mm, 2mL Screw Top Wide, 10-425 Screw Opening Glass Vials & Kits (Clear & Amber)



12 x 32 mm, 2ml, 9mm Screw Top Wide Opening Glass Vial Kits

- 9mm thread design, 40% larger opening
- Reduces the chance of bent or broken needles
- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one-piece clamshell tray



Description	Qty	Part#	Price \$
Clear glass 2.0ml screw top wide opening vial; screw cap, 9mm red polypropylene with PTFE/red rubber septa	100/pk	392611542	-
Amber glass 2.0ml screw top wide opening vial; screw cap, 9mm red polypropylene with PTFE/red rubber septa	100/pk	392611543	-
Clear glass 2.0ml screw top wide opening vial; screw cap, 9mm red polypropylene with PTFE/silicone septa	100/pk	392611549	-
Clear glass 2.0ml screw top wide opening vial; screw cap, 9mm red polypropylene with PTFE/butyl rubber septa	100/pk	392611633	-
Amber glass 2.0ml screw top wide opening vial; screw cap, 9mm red polypropylene with PTFE/silicone septa	100/pk	392611550	-
Amber glass 2.0ml screw top wide opening vial; screw cap, 9mm red polypropylene with PTFE/butyl rubber septa	100/pk	392611834	-
Clear glass 2.0ml screw top wide opening vial; screw cap, 9mm red polypropylene with PTFE/silicone/PTFE septa	100/pk	392611546	-
Amber glass 2.0ml screw top wide opening vial; screw cap, 9mm red polypropylene with PTFE/silicone/PTFE septa	100/pk	392611547	-
Clear glass 2.0ml screw top wide opening vial; screw cap, 9mm red polypropylene with pre-slit blue PTFE/silicone septa	100/pk	392611555	-
Clear glass 2.0ml Silanized screw top wide opening vial; screw cap, 9mm red polypropylene with PTFE/silicone septa	100/pk	392611553	-
Clear glass 2.0ml Silanized screw top wide opening vial; screw cap, 9mm red polypropylene with PTFE/butyl rubber septa	100/pk	392611836	-
Amber glass 2.0ml Silanized screw top wide opening vial; screw cap, 9mm red polypropylene with PTFE/silicone septa	100/pk	392611838	-
Clear 2.0ml screw wide; 200uL Glass Insert, conical point interior, no spring required; Screw cap, 9mm red polypropylene with PTFE/red rubber septa	100/pk	392611545	-
Clear 2.0ml screw wide; 200uL Glass Insert, conical point interior, no spring required; Screw cap, 9mm red polypropylene with PTFE/silicone septa	100/pk	392611552	-
Clear 2.0ml screw wide; 200uL Glass Insert, conical point interior, no spring required; Cap, 9mm red polypropylene with PTFE/butyl rubber septa	100/pk	392611636	-



12 x 32 mm, 2ml, 9mm Screw Top Wide Opening Glass Vial Kits (Continued)

Description	Qty	Part#	Price \$
Clear 2.0ml screw wide;200uL Glass Insert polymer spring, conical precision mandrel interior; Cap, 9mm red polypropylene with PTFE/red rubber septa	100/pk	392611544	-
Clear 2.0ml screw wide;200uL Glass Insert polymer spring, conical precision mandrel interior; Cap, 9mm red polypropylene with PTFE/silicone septa	100/pk	392611551	-
Clear 2.0ml screw wide;200uL Glass Insert polymer spring, conical precision mandrel interior; Cap, 9mm red polypropylene, PTFE/butyl rubber septa	100/pk	392611835	-
Clear 2.0ml screw wide;200uL Insert polymer spring, conical precision mandrel interior; Cap, 9mm red polypropylene with PTFE/silicone/PTFE septa	100/pk	392611548	-
Clear 2.0ml screw wide;200uL Silanized Insert polymer spring, conical precision mandrel interior; Cap, 9mm red polypropylene, PTFE/silicone septa	100/pk	392611554	-
Clear 2.0ml screw wide;200uL Silanized Insert polymer spring, conical precision mandrel interior; Cap, 9mm red polypropylene, PTFE/butyl rubber septa	100/pk	392611837	-



12 x 32 mm, 2ml, 9mm Screw Top Wide Opening Glass Vials

- 40% more area for reliable needle penetration
- Compatible with most autosamplers
- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass. Packaged in one-piece clamshell tray
- Silane treated vials and inserts available for polar compounds i.e., amines, pesticides, phenols, proteins, etc.

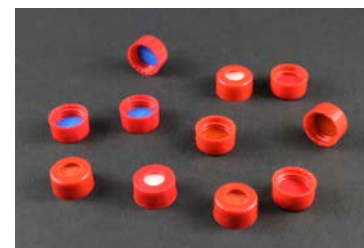


Description	Qty	Part#	Price \$
Clear glass 2.0ml screw top wide opening vial	100/pk	392611653	-
Clear glass 2.0ml screw top wide opening vial, Silanized	100/pk	392611655	-
Amber glass 2.0ml screw top wide opening vial	100/pk	392611654	-
Amber glass 2.0ml screw top wide opening vial, Silanized	100/pk	392611879	-



9mm Screw Caps With Septa

- Compatible with most robotic autosamplers
- Sure-sealing polypropylene caps
- Convenient, clean pre-inserted septa
- Five septa to choose from



Description	Qty	Part#	Price \$
9mm Screw cap, red polypropylene w/PTFE silicone septa	100/pk	392611659	-
9mm Screw cap, red polypropylene w/PTFE/butyl rubber septa	100/pk	392611661	-
9mm Screw cap, red polypropylene w/PTFE/red rubber septa	100/pk	392611657	-
9mm Screw cap, red polypropylene w/PTFE/silicone/PTFE septa	100/pk	392611658	-
9mm Screw cap, red polypropylene w/pre-slit blue PTFE/silicone septa	100/pk	392611660	-



Microvolume 200uL Glass Inserts for 12 x 32 mm 2mL Wide Opening Vials

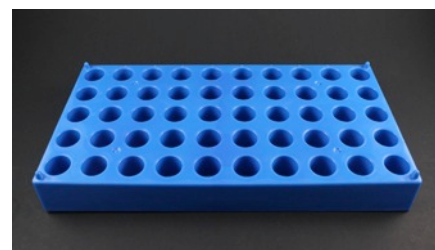
- 200uL inserts
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self-aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Type 1 borosilicate glass
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.



Description	Qty	Part#	Price \$
200uL Glass Insert, conical point interior, no spring required	100/pk	392611596	-
	1000/pk	392611596-10	-
200uL Silanized Glass Insert, conical point interior, no spring required	100/pk	392611855	-
	1000/pk	392611855-10	-
200uL Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611594	-
	1000/pk	392611594-10	-
200uL Silanized Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611595	-
	1000/pk	392611595-10	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	-
	5/pk	392611517-5	-

Polypropylene Gridded Vial Storage Box

- Holds (100) 12 x 32 mm vials
- Hinged lid w/ secure snap closure
- Alpha-Numeric numbers/letters on grids for easy sample ID
- Clear polypropylene for easy identification
- Stackable w/ writing panel on lid front for ID
- Rugged, compact design, and raised edges for non-slip storage
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Gridded Vial Storage Box	5/pk	50001	-

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12 x 32 mm, 2ml Crimp Top Wide Opening Glass Vial Kits

- 40% larger opening.
- Reduces the chance of bent or broken needles.
- Improved autosampler needle accuracy & handling.
- Post baked Teflon/silicone septa for increased performance.
- Lot to lot quality assurance with lot number coding.
- Type 1 borosilicate glass.
- Packaged in a sturdy, easy open, one-piece clamshell tray.
- New Improved Teflon/red rubber septa for increased performance.
- Silane treated vials and inserts available for polar compounds i.e., amines, pesticides, phenols, proteins, etc.
- 11mm aluminum open hole crimp caps.



Description	Qty	Part#	Price \$
Clear glass 2.0ml crimp top wide opening vial; crimp cap, 11mm silver aluminum with PTFE/red rubber septa	100/pk	392611518	-
Amber glass 2.0ml crimp top wide opening vial; crimp cap, 11mm silver aluminum with PTFE/red rubber septa	100/pk	392611519	-
Clear glass 2.0ml crimp top wide opening vial; crimp cap, 11mm silver aluminum with PTFE/butyl rubber septa	100/pk	392611818	-
Amber glass 2.0ml crimp top wide opening vial; crimp cap, 11mm silver aluminum with PTFE/butyl rubber septa	100/pk	392611819	-
Clear glass 2.0ml crimp top wide opening vial; crimp cap, 11mm silver aluminum with PTFE/silicone septa	100/pk	392611525	-
Amber glass 2.0ml crimp top wide opening vial; crimp cap, 11mm silver aluminum with PTFE/silicone septa	100/pk	392611526	-
Clear glass 2.0ml Silanized crimp top wide opening vial; crimp cap, 11mm silver aluminum with PTFE/red rubber septa	100/pk	392611523	-
Amber glass 2.0ml Silanized crimp top wide opening vial; crimp cap, 11mm silver aluminum with PTFE/red rubber septa	100/pk	392611825	-
Clear glass 2.0ml Silanized crimp top wide opening vial; crimp cap, 11mm silver aluminum with PTFE/butyl rubber septa	100/pk	392611823	-
Clear 2.0ml crimp top wide opening; 200uL glass Inserts, conical point interior, no spring required; 11mm silver aluminum, PTFE/red rubber septa	100/pk	392611521	-
Clear 2.0ml crimp wide; 200uL Inserts, conical point interior, no spring required; Crimp cap, 11mm silver aluminum with PTFE/butyl rubber septa	100/pk	392611821	-
Clear 2.0ml crimp top wide opening; 200uL glass Inserts, conical point interior, no spring required; 11mm silver aluminum crimp, PTFE/silicone septa	100/pk	392611528	-
Amber 2.0ml crimp top wide; 200uL glass Inserts polymer spring, conical precision formed mandrel interior; 11mm silver aluminum, PTFE/red rubber septa	100/pk	392611522	-
Clear 2.0ml crimp top wide; 200uL glass Inserts polymer spring, conical precision formed mandrel interior; 11mm silver aluminum, PTFE/red rubber septa	100/pk	392611520	-
Amber 2.0ml crimp wide; 200uL Inserts polymer spring, conical precision mandrel interior; Cap, 11mm silver aluminum with PTFE/butyl rubber septa	100/pk	392611822	-



12 x 32 mm, 2ml Crimp Top Wide Opening Glass Vial Kits (Continued)

Description	Qty	Part#	Price \$
Clear 2.0ml crimp wide; 200uL Inserts polymer spring, conical precision mandrel interior; Cap, 11mm silver aluminum, PTFE/butyl rubber septa	100/pk	392611820	-
Clear 2.0ml crimp top wide; 200uL glass Inserts polymer spring, conical precision formed mandrel interior; 11mm silver aluminum, PTFE/silicone septa	100/pk	392611527	-
Clear 2.0ml crimp wide; 200uL Silanized glass Inserts polymer spring, conical precision mandrel interior; 11mm silver aluminum, PTFE/red rubber septa	100/pk	392611524	-
Amber 2.0ml crimp wide; 200uL glass Inserts polymer spring, conical precision mandrel interior; 11mm silver aluminum, PTFE/silicone septa	100/pk	392611529	-
Clear 2.0ml crimp wide; 200uL Silanized Inserts polymer spring, conical precision mandrel interior; Cap, 11mm silver aluminum, PTFE/butyl rubber septa	100/pk	392611824	-



12 x 32 mm, 2ml Crimp Top Wide Opening Glass Vials

- 40% more area for reliable needle penetration. Compatible with most autosamplers
- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass. Packaged in one-piece clamshell tray
- Silane treated vials and inserts available for polar compounds i.e., amines, pesticides, phenols, proteins, etc.
- 11mm aluminum open hole crimp caps available



Description	Qty	Part#	Price \$
Clear glass 2.0ml crimp top wide opening vial	100/pk	392611634	-
Clear glass 2.0ml crimp top wide opening vial, silanized	100/pk	392611637	-
Amber glass 2.0ml crimp top wide opening vial	100/pk	392611635	-
Amber glass 2.0ml crimp top wide opening vial, silanized	100/pk	392611638	-



11mm Aluminum Crimp Caps with Septa

- Crimp-tight aluminum caps.
- Convenient, clean pre-installed septa.
- Three septa to choose from.



Description	Qty	Part#	Price \$
11mm Crimp Cap, aluminum PTFE/Red rubber septa	100/pk	392611627	-
11mm Crimp Cap, aluminum PTFE/Butyl rubber septa	100/pk	392611632	-
11mm Crimp Cap, aluminum PTFE/Silicone septa	100/pk	392611631	-
11mm Crimp Cap, aluminum with PTFE/Red rubber septa	144/pk	99779701	-



11mm Colored Crimp Caps w/ Septa

- Crimp tight aluminum caps
- Five colors of caps for easy identification



Description	Qty	Part No.	Price \$
11mm crimp cap, aluminum, PTFE/ Red rubber liner	100/pk	392611627	-
	1000/pk	392611627-10	
11mm crimp cap, gold aluminum, PTFE/ Red rubber liner	100/pk	392611627GD	-
	1000/pk	392611627GD-10	
11mm crimp cap, blue aluminum, PTFE/ Red rubber liner	100/pk	392611627B	-
	1000/pk	392611627B-10	
11mm crimp cap, green aluminum, PTFE/ Red rubber liner	100/pk	392611627G	-
	1000/pk	392611627G-10	
11mm crimp cap, red aluminum, PTFE/ Red rubber liner	100/pk	392611627R	-
	1000/pk	392611627R-10	



Microvolume 200uL Glass Inserts for 12 x 32 mm 2mL Wide Opening Vials

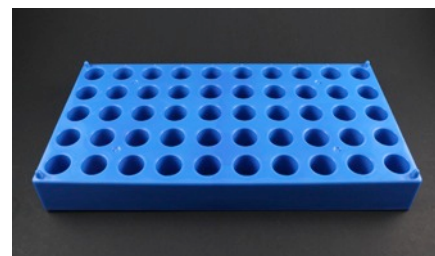
- 200uL inserts
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self-aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Type 1 borosilicate glass
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.



Description	Qty	Part#	Price \$
200uL Glass Insert, conical point interior, no spring required	100/pk	392611596	-
	1000/pk	392611596-10	
200uL Silanized Glass Insert, conical 4 point interior, no spring required	100/pk	392611855	-
	1000/pk	392611855-10	
200uL Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611594	-
	1000/pk	392611594-10	
200uL Silanized Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611595	-
	1000/pk	392611595-10	

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	
	5/pk	392611517-5	-

Polypropylene Gridded Vial Storage Box

- Holds (100) 12 x 32 mm vials
- Hinged lid w/ secure snap closure
- Alpha-Numeric numbers/letters on grids for easy sample ID
- Clear polypropylene for easy identification
- Stackable w/ writing panel on lid front for ID
- Rugged, compact design, and raised edges for non-slip storage
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Gridded Vial Storage Box	5/pk	50001	-

11 mm Crimper & Decapper

- Easy to use
- Adjustable crimping depth
- Permits minor handle pressure
- Decapper removes crimped seals from vials



Description	Qty	Part#	Price \$
Hand Crimper for 11mm Crimp Caps	1/pk	AL666011	-
Hand Decapper for 11mm Crimp Caps	1/pk	AL98711	-

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more information.



12 x 32 mm, 2ml Screw Top Standard Opening Glass Vial Kits

- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one-piece clamshell tray
- 8-425 Black Screw caps
- Post baked Teflon/silicone septa for increased performance



Description	Qty	Part#	Price \$
Clear glass 2.0ml screw top standard opening vial; Screw cap, 8mm black polypropylene with PTFE/silicone septa	100/pk	392611530	-
Amber glass 2.0ml screw top standard opening vial; Screw cap, 8mm black polypropylene with PTFE/silicone septa	100/pk	392611531	-
Clear glass 2.0ml screw top standard opening vial; screw cap, 8mm black polypropylene with PTFE/butyl rubber septa	100/pk	392611826	-
Amber glass 2.0ml screw top standard opening vial; screw cap, 8mm black polypropylene with PTFE/butyl rubber septa	100/pk	392611827	-
Clear glass 2.0ml screw top standard opening vial; screw cap, 8mm black polypropylene with PTFE/silicone/PTFE septa	100/pk	392611537	-
Amber glass 2.0ml screw top standard opening vial; screw cap, 8mm black polypropylene with PTFE/silicone/PTFE septa	100/pk	392611538	-
Clear 2.0ml screw standard; 100uL Insert, conical point interior, no spring required; Cap, 8mm black polypropylene with PTFE/silicone septa	100/pk	392611533	-
Clear glass 2.0ml Silanized screw top standard opening vial; screw cap, 8mm black polypropylene with PTFE/silicone septa	100/pk	392611535	-
Amber glass 2.0ml Silanized screw top standard opening vial; screw cap, 8mm black polypropylene with PTFE/silicone septa	100/pk	392611833	-
Clear 2.0ml screw standard; 100uL Insert, conical point interior, no spring required; Cap, 8mm black polypropylene, PTFE/silicone/PTFE septa	100/pk	392611540	-
Clear 2ml screw standard; 100uL Insert, conical point interior, no spring required; Cap, 8mm black polypropylene with PTFE/butyl rubber septa	100/pk	392611829	-
Clear glass 2.0ml Silanized screw top standard opening vial; screw cap, 8mm black polypropylene with PTFE/butyl rubber septa	100/pk	392611831	-
Clear 2.0ml screw standard; 100uL Insert polymer spring, conical precision point interior; Cap, 8mm black polypropylene, PTFE/silicone septa	100/pk	392611532	-
Amber 2.0ml screw standard; 100uL Insert polymer spring, conical precision point interior; Cap, 8mm black polypropylene, PTFE/silicone septa	100/pk	392611534	-
Clear 2ml screw standard; 100uL Insert polymer spring, conical precision point interior; Cap, 8mm black polypropylene, PTFE/butyl rubber septa	100/pk	392611828	-
Amber 2ml screw standard; 100uL Insert polymer spring, conical precision point interior; Cap, 8mm black polypropylene, PTFE/butyl rubber septa	100/pk	392611830	-
Clear 2.0ml screw standard; 100uL Insert polymer spring, conical precision point interior; Cap, 8mm black polypropylene, PTFE/silicone/PTFE septa	100/pk	392611539	-
Amber 2.0ml screw standard; 100uL Insert polymer spring, conical precision point interior; Cap, 8mm black polypropylene, PTFE/silicone/PTFE septa	100/pk	392611541	-
Clear 2.0ml screw standard; 100uL Silanized Insert polymer spring, conical precision point interior; Cap, 8mm black polypropylene, PTFE/silicone septa	100/pk	392611536	-
Clear 2ml screw standard; 100uL Silanized polymer spring, conical precision point interior; Cap, 8mm black polypropylene, PTFE/butyl rubber septa	100/pk	392611832	-



Convenience Kits - 144/Pack

- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one-piece clamshell tray
- 8-425 Black Screw caps
- Post baked Teflon/silicone septa for increased performance



Description	Qty	Part#	Price \$
Clear glass 2.0ml screw top standard opening Vial; screw Cap, 8mm black polypropylene with red PTFE/silicone septa	144/pk	394983500	-
Clear glass 2.0ml screw top standard opening Vial; screw Cap, 8mm black polypropylene with red PTFE/silicone septa	12 Packs of 144	394983501	-
Clear glass 2.0ml screw top standard opening Vial; screw Cap, 8mm white polypropylene with red PTFE/silicone septa	144/pk	392604210	-



12 x 32 mm, 2ml, 8-425 Screw Top Standard Opening Glass Vials

- 8mm screw thread design
- Post baked Teflon/silicone septa for increased performance
- Compatible with most autosamplers
- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one-piece clamshell tray
- Caps, septa, microvolume inserts and silane treated vials available



Description	Qty	Part#	Price \$
Clear glass 2.0ml screw top standard opening vials	144/pk	6600010400	-
Clear glass 2.0ml screw top standard opening vial	100/pk	392611639	-
Clear glass 2.0ml screw top standard opening vial, silanized	100/pk	392611642	-
Amber glass 2.0ml screw top standard opening vials	144/pk	99668900	-
Amber glass 2.0ml screw top standard opening vial	100/pk	392611640	-
Amber glass 2.0ml screw top standard opening vial, silanized	100/pk	392611643	-



8-425 Screw Caps With Septa

- Sure-sealing polypropylene caps
- Convenient, clean pre-inserted septa
- Four septa to choose from



Description	Qty	Part#	Price \$
8mm screw cap, black polypropylene with red PTFE silicone Septa	144/pk	99778800	-
8mm screw caps, black polypropylene with PTFE/butyl rubber Septa	100/pk	392611645	-
8mm screw caps, black polypropylene with PTFE Silicone Septa	100/pk	392611641	-
8mm screw caps, black polypropylene with PTFE/Silicone/PTFE Septa	100/pk	392611644	-



8mm Black Polypropylene Screw Caps

- Screw Open Hole Cap
- Inert Polypropylene
- Use with 8mm Septa



Description	Qty	Part#	Price \$
Screw Cap, 8mm black polypropylene	144/pk	1600069800	-



8mm Teflon/Silicone Septa

- Fits Standard opening caps
- Post baked Teflon/silicone septa for increased performance



Description	Qty	Part#	Price \$
Septa, 8mm red Teflon/silicone	144/pk	6900016900	-
Septa, 8mm blue Teflon/silicone	144/pk	390614901	-



Microvolume 100uL Glass Inserts for 12 x 32 mm 2 mL Standard Opening Vials

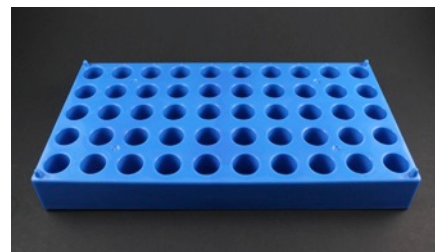
- 100uL inserts
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.
- Type 1 borosilicate glass



Description	Qty	Part#	Price \$
100uL glass Inserts , conical point interior, no spring required	100/pk	392611593	-
	1000/pk	392611593-10	
100uL glass Inserts with polymer spring, conical with precision point interior	100/pk	392611591	-
	1000/pk	392611591-10	
100uL Silanized glass Inserts , conical point interior, no spring required	100/pk	392611856	-
	1000/pk	392611856-10	
100uL Silanized glass Inserts with polymer spring, conical with precision point interior	100/pk	392611592	-
	1000/pk	392611592-10	

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	
	5/pk	392611517-5	-

Polypropylene Gridded Vial Storage Box

- Holds (100) 12 x 32 mm vials
- Hinged lid w/ secure snap closure
- Alpha-Numeric numbers/letters on grids for easy sample ID
- Clear polypropylene for easy identification
- Stackable w/ writing panel on lid front for ID
- Rugged, compact design, and raised edges for non-slip storage
- Rated at -90°C for freezer storage



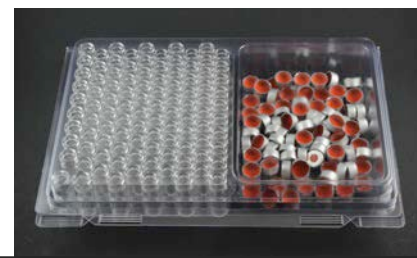
Description	Qty	Part No.	Price \$
Polypropylene Gridded Vial Storage Box	5/pk	50001	-

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12 x 32 mm, 2ml Crimp Top Standard Opening Glass Vial Kits

- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one-piece clamshell tray
- 11mm aluminum open hole crimp caps
- Post baked Teflon/silicone septa for increased performance



Description	Qty	Part#	Price \$
Clear glass 2.0ml crimp top standard opening vial; Crimp cap, 11mm silver aluminum with PTFE/red rubber septa	100/pk	392611501	-
Amber glass 2.0ml crimp top standard opening vial; Crimp cap, 11mm silver aluminum with PTFE/red rubber septa	100/pk	392611502	-
Clear glass 2.0ml crimp top standard opening vial; crimp cap, 11mm silver aluminum with PTFE/butyl rubber septa	100/pk	392611810	-
Amber glass 2.0ml crimp top standard opening vial; crimp cap, 11mm silver aluminum with PTFE/butyl rubber septa	100/pk	392611811	-
Clear glass 2.0ml crimp top standard opening vial; crimp cap, 11mm silver aluminum with PTFE/silicone septa	100/pk	392611508	-
Amber glass 2.0ml crimp top standard opening vial; crimp cap, 11mm silver aluminum with PTFE/silicone septa	100/pk	392611509	-
Clear glass 2.0ml Silanized crimp top standard opening vial; crimp cap, 11mm silver aluminum with PTFE/red rubber septa	100/pk	392611506	-
Clear 2.0ml crimp standard; 100uL Inserts, conical point interior, no spring required; Cap, 11mm silver aluminum with PTFE/red rubber septa	100/pk	392611504	-
Amber glass 2.0ml Silanized crimp top standard opening vial; crimp cap, 11mm silver aluminum with PTFE/red rubber septa	100/pk	392611817	-
Clear glass 2.0ml Silanized crimp top standard opening vial; crimp cap, 11mm silver aluminum with PTFE/butyl rubber septa	100/pk	392611815	-
Clear 2.0ml crimp standard; 100uL Inserts, conical point interior, no spring required; Cap, 11mm silver aluminum with PTFE/butyl rubber septa	100/pk	392611813	-
Clear 2.0ml crimp standard; 100uL Inserts, conical point interior, no spring required; Cap, 11mm silver aluminum, PTFE/silicone septa	100/pk	392611511	-
Clear 2.0ml crimp standard; 100uL Inserts polymer spring, conical precision point interior; Cap, 11mm silver aluminum, PTFE/red rubber septa	100/pk	392611503	-
Amber 2.0ml crimp standard; 100uL Inserts polymer spring, conical precision point interior; Cap, 11mm silver aluminum, PTFE/red rubber septa	100/pk	392611505	-
Clear 2.0ml crimp standard; 100uL Inserts polymer spring, conical precision point interior; Cap, 11mm silver aluminum, PTFE/butyl rubber septa	100/pk	392611812	-



12 x 32 mm, 2ml Crimp Top Standard Opening Glass Vial Kits (Continued)

Description	Qty	Part#	Price \$
Amber 2 ml crimp standard; 100uL Inserts polymer spring, conical precision point interior; Cap, 11mm silver aluminum, PTFE/butyl rubber septa	100/pk	392611814	-
Clear 2.0ml crimp standard; 100uL Inserts polymer spring, conical precision point interior; Cap, 11mm silver aluminum, PTFE/silicone septa	100/pk	392611510	-
Amber 2.0ml crimp standard; 100uL Inserts polymer spring, conical precision point interior; Cap, 11mm silver aluminum, PTFE/silicone septa	100/pk	392611512	-
Clear 2.0ml crimp standard; 100uL Silanized Inserts polymer spring, conical precision point interior; Cap, 11mm silver aluminum, PTFE/red rubber septa	100/pk	392611507	-
Clear 2.0ml crimp standard; 100uL Silanized Inserts polymer spring, conical precision point interior; Cap, 11mm silver aluminum, PTFE/butyl rubber septa	100/pk	392611816	-



12 x 32 mm, 2ml Crimp Top Standard Opening Glass Vials

- Standard opening. Compatible with most autosamplers
- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass. Packaged in one-piece clamshell tray
- 11mm aluminum open hole crimp caps available



Description	Qty	Part#	Price \$
Clear glass 2.0ml crimp top standard opening vial	100/pk	392611626	-
Clear glass 2.0ml crimp top standard opening vial, Silanized	100/pk	392611630	-
Amber glass 2.0ml crimp top standard opening vial	100/pk	392611628	-
Amber glass 2.0ml crimp top standard opening vial, Silanized	100/pk	392611629	-



11mm Aluminum Crimp Caps with Septa

- Crimp-tight aluminum caps
- Convenient, clean pre-installed septa
- Three septa to choose from



Description	Qty	Part#	Price \$
11mm Crimp Cap, aluminum PTFE/Red rubber septa	100/pk	392611627	-
11mm Crimp Cap, aluminum PTFE/Butyl rubber septa	100/pk	392611632	-
11mm Crimp Cap, aluminum PTFE/Silicone septa	100/pk	392611631	-
11mm Crimp Cap, aluminum with PTFE/Red rubber septa	144/pk	99779701	-



11mm Colored Crimp Caps w/ Septa

- Crimp tight aluminum caps
- Five colors of caps for easy identification



Description	Qty	Part No.	Price \$
11mm crimp cap, aluminum, PTFE/ Red rubber liner	100/pk	392611627	-
	1000/pk	392611627-10	
11mm crimp cap, gold aluminum, PTFE/ Red rubber liner	100/pk	392611627GD	-
	1000/pk	392611627GD-10	
11mm crimp cap, blue aluminum, PTFE/ Red rubber liner	100/pk	392611627B	-
	1000/pk	392611627B-10	
11mm crimp cap, green aluminum, PTFE/ Red rubber liner	100/pk	392611627G	-
	1000/pk	392611627G-10	
11mm crimp cap, red aluminum, PTFE/ Red rubber liner	100/pk	392611627R	-
	1000/pk	392611627R-10	



Microvolume Glass Inserts for 12 x 32 mm 2 mL Standard Opening Vials

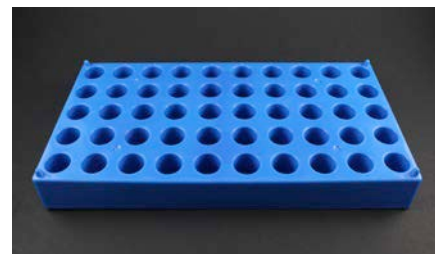
- 100uL inserts
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc
- Type 1 borosilicate glass



Description	Qty	Part#	Price \$
100uL glass Inserts, conical point interior, no spring required	100/pk	392611593	-
	1000/pk	392611593-10	
100uL glass Inserts with polymer spring, conical with precision point interior	100/pk	392611591	-
	1000/pk	392611591-10	
100uL Silanized glass Inserts, conical point interior, no spring required	100/pk	392611856	-
	1000/pk	392611856-10	
100uL Silanized glass Inserts with polymer spring, conical with precision point interior	100/pk	392611592	-
	1000/pk	392611592-10	

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	
	5/pk	392611517-5	-

Polypropylene Gridded Vial Storage Box

- Holds (100) 12 x 32 mm vials
- Hinged lid w/ secure snap closure
- Alpha-Numeric numbers/letters on grids for easy sample ID
- Clear polypropylene for easy identification
- Stackable w/ writing panel on lid front for ID
- Rugged, compact design, and raised edges for non-slip storage
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Gridded Vial Storage Box	5/pk	50001	-

11 mm Crimper & Decapper

- Easy to use
- Adjustable crimping depth
- Permits minor handle pressure
- Decapper removes crimped seals from vials



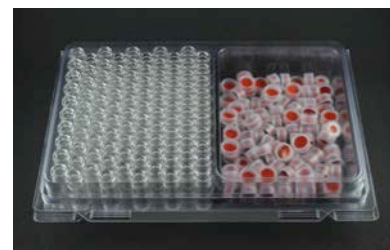
Description	Qty	Part#	Price \$
Hand Crimper for 11mm Crimp Caps	1/pk	AL666011	-
Hand Decapper for 11mm Crimp Caps	1/pk	AL98711	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.



12 x 32 mm, 2ml Snap Top Wide Opening Glass Vial Kits

- 40% larger opening.
- Reduces the chance of bent or broken needles.
- Lot to lot quality assurance with lot number coding.
- Type 1 borosilicate glass.



Description	Qty	Part#	Price \$
Clear glass 2.0ml snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/red rubber septa	100/pk	392611566	-
Amber glass 2.0ml snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/red rubber septa	100/pk	392611567	-
Clear glass 2.0ml snap top wide opening vial; Snap cap, 11mm natural polyethylene with pre-slit blue PTFE/silicone septa	100/pk	392611579	-
Clear glass 2.0ml snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/silicone septa	100/pk	392611573	-
Clear glass 2.0ml snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/butyl rubber septa	100/pk	392611839	-
Amber glass 2.0ml snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/silicone septa	100/pk	392611574	-
Clear glass 2.0ml snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/silicone/PTFE septa	100/pk	392611570	-
Amber glass 2.0ml snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/butyl rubber septa	100/pk	392611840	-
Amber glass 2.0ml snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/silicone/PTFE septa	100/pk	392611571	-
Clear glass 2.0ml Silanized snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/silicone septa	100/pk	392611577	-
Clear 2.0ml snap top wide; 200uL Glass Insert, conical point interior, no spring required; Cap, 11mm natural polyethylene with PTFE/red rubber septa	100/pk	392611569	-
Clear glass 2.0ml Silanized snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/butyl rubber septa	100/pk	392611843	-
Amber glass 2.0ml Silanized snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/silicone septa	100/pk	392611861	-
Clear 2.0ml snap top wide; 200uL Glass Insert, conical point interior, no spring required; Snap cap, 11mm natural polyethylene with PTFE/silicone septa	100/pk	392611576	-
Clear 2.0ml snap top wide; 200uL Glass Insert, conical point interior, no spring required; Cap, 11mm natural polyethylene, PTFE/butyl rubber septa	100/pk	392611842	-
Clear 2.0ml snap top wide; 200uL Glass Insert polymer spring, conical precision mandrel interior; Cap, 11mm natural polyethylene with PTFE/red rubber septa	100/pk	392611568	-



12 x 32 mm, 2ml Snap Top Wide Open Glass Vial Kits (Continued)

Description	Qty	Part#	Price \$
Clear 2.0ml snap top wide; 200uL Glass Insert polymer spring, conical precision mandrel interior; Cap, 11mm natural polyethylene, PTFE/silicone septa	100/pk	392611575	-
Clear 2.0ml snap top wide; 200uL Glass Insert polymer spring, conical precision mandrel interior; Cap, 11mm natural polyethylene, PTFE/butyl rubber septa	100/pk	392611841	-
Clear 2.0ml snap top wide; 200uL Glass Insert polymer spring, conical precision mandrel interior; Cap, 11mm natural polyethylene, PTFE/silicone/PTFE septa	100/pk	392611572	-
Clear 2.0ml snap top wide; 200uL Silanized Glass Insert polymer spring, conical precision mandrel interior; Cap, 11mm natural polyethylene, PTFE/silicone septa	100/pk	392611578	-
Clear 2.0ml snap top wide; 200uL Silanized Insert polymer spring, conical precision mandrel interior; Cap, 11mm natural polyethylene, PTFE/butyl rubber septa	100/pk	392611844	-

11mm Snap Top Caps with Septa



- Snap-tight polyethylene Snap Top Caps
- Convenient, clean pre-installed septa
- Five septa to choose from



Description	Qty	Part#	Price \$
Snap Top Caps, 11mm natural polyethylene with PTFE/red rubber septa	100/pk	392611871	-
Snap Top Caps, 11mm natural polyethylene with PTFE/sil/PTFE septa	100/pk	392611872	-
Snap Top Caps, 11mm natural polyethylene with PTFE/silicone septa	100/pk	392611873	-
Snap Top Caps, 11 mm natural polyethylene with pre-slit blue PTFE/sil septa	100/pk	392611874	-
Snap Top Caps, 11mm natural polyethylene with butyl rubber septa	100/pk	392611875	-



Microvolume 200uL Glass Inserts for 12 x 32 mm 2mL Wide Opening Vials

- 200uL inserts
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self-aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Type 1 borosilicate glass
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.



Description	Qty	Part#	Price \$
200uL Glass Insert, conical point interior, no spring required	100/pk	392611596	-
	1000/pk	392611596-10	
200uL Silanized Glass Insert, conical 4 point interior, no spring required	100/pk	392611855	-
	1000/pk	392611855-10	
200uL Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611594	-
	1000/pk	392611594-10	
200uL Silanized Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611595	-
	1000/pk	392611595-10	



12 x 32 mm, 2ml, 10-425 Screw Top Wide Opening Glass Vial Kits

- 10-425 thread cap allows vial to hang from autosampler tray
- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one piece clamshell tray



Description	Qty	Part#	Price \$
Clear glass 2.0ml screw top wide opening vial; Screw cap, 10mm red polypropylene with PTFE/silicone/PTFE septa	100/pk	392611562	-
Amber glass 2.0ml screw top wide opening vial; Screw cap, 10mm red polypropylene with PTFE/silicone/PTFE septa	100/pk	392611563	-
Clear 2.0ml screw top wide; 200uL Insert, conical point interior, no spring required; Cap, 10mm red polypropylene with PTFE/silicone/PTFE septa	100/pk	392611565	-
Clear 2.0ml screw top wide; 200uL Insert polymer spring, conical precision mandrel interior; Cap, 10mm red polypropylene, PTFE/silicone/PTFE septa	100/pk	392611564	-
Clear glass 2.0ml screw top wide opening vial; Screw cap, 10mm white polypropylene with PTFE/silicone septa	100/pk	392611556	-
Clear glass 2.0ml screw top wide opening vial; Screw cap, 10mm white polypropylene with PTFE/butyl rubber septa	100/pk	392611845	-
Amber glass 2.0ml screw top wide opening vial; Screw cap, 10mm white polypropylene with PTFE/silicone septa	100/pk	392611557	-
Amber glass 2.0ml screw top wide opening vial; Screw cap, 10mm white polypropylene with PTFE/butyl rubber septa	100/pk	392611846	-
Clear glass 2.0ml Silanized screw top wide opening vial; Screw cap, 10mm white polypropylene with PTFE/silicone septa	100/pk	392611560	-
Clear glass 2.0ml Silanized screw top wide opening vial; Screw cap, 10mm white polypropylene with PTFE/butyl rubber septa	100/pk	392611849	-
Clear 2.0ml screw top wide; 200uL Insert, conical point interior, no spring required; Screw cap, 10mm white polypropylene, PTFE/silicone septa	100/pk	392611559	-
Clear 2.0ml screw top wide; 200uL Insert, conical point interior, no spring required; Cap, 10mm white polypropylene with PTFE/butyl rubber septa	100/pk	392611848	-
Amber glass 2.0ml Silanized screw top wide opening vial; Screw cap, 10mm white polypropylene with PTFE/silicone septa	100/pk	392611851	-
Clear 2.0ml screw top wide; 200uL Insert polymer spring, conical precision mandrel interior; Cap, 10mm white polypropylene, PTFE/silicone septa	100/pk	392611558	-
Clear 2.0ml screw wide; 200uL Glass insert polymer spring, conical precision mandrel interior; Cap, 10mm white polypropylene, PTFE/butyl rubber septa	100/pk	392611847	-
Clear 2.0ml screw top wide; 200uL Silanized Insert polymer spring, conical precision mandrel interior; Cap, 10mm white polypropylene, PTFE/sil. septa	100/pk	392611561	-
Clear 2ml screw wide; 200uL Silanized Insert polymer spring, conical precision mandrel interior; Cap 10mm white polypropylene, PTFE/butyl rubber septa	100/pk	392611850	-



12 x 32 mm, 2ml, 10-425 Screw Top Wide Opening Glass Vial Kit w/ Caps & Polypropylene Hinged Box (Assembled)

- 10-425 mm threaded cap (pre-installed on vials)
- Type 1 borosilicate glass
- Clear Rugged Polypropylene Case Holds 100 12 x 32mm Vials
- Alpha-Numeric Numbers and Letters on Grids of Case for Easy Sample ID
- Case is Stackable with Writing Panel on Lid Front for ID
- Case is Ideal for Laboratory and Freezer Storage – Rated at -90 ° C



Description	Qty	Part#	Price \$
Clear glass 2.0ml screw top wide opening vial: Screw cap, 10mm red polypropylene with PTFE/silicone septa. Caps are screwed onto vials & placed in clear polypropylene hinged storage box	100/pk 1000/pk	190010205 190010205-10	-



12 x 32 mm, 2ml, 10-425 Screw Top Wide Opening Glass Vials

- Wide opening 40% more area for reliable needle penetration
- Compatible with most autosamplers
- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one-piece clamshell tray
- Silane treated vials and inserts available for polar compounds i.e., amines, pesticides, phenols, proteins, etc.
- 10-425 screw caps and septa available



Description	Qty	Part#	Price \$
Clear glass 2.0ml screw top wide opening vial	100/pk	392611646	-
Clear glass 2.0ml screw top wide opening vial, silanized	100/pk	392611648	-
Amber glass 2.0ml screw top wide opening vial	100/pk	392611656	-
Amber glass 2.0ml screw top wide opening vial, silanized	100/pk	392611649	-



10-425 Screw Top Caps With Septa

- Sure-sealing polypropylene caps
- Convenient, clean pre-inserted septa
- Three septa to choose from



Description	Qty	Part#	Price \$
Screw top cap, 10mm red polypropylene with PTFE/Silicone/PTFE septa	100/pk	392611652	-
Screw top cap, 10mm white polypropylene with PTFE/butyl rubber septa	100/pk	392611651	-
Screw top cap, 10mm white polypropylene with PTFE/silicone septa	100/pk	392611650	-



Microvolume 200uL Glass Inserts for 12 x 32 mm 2mL Wide Opening Vials

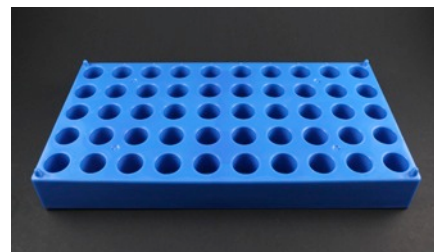
- 200uL inserts
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self-aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Type 1 borosilicate glass
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.



Description	Qty	Part#	Price \$
200uL Glass Insert, conical point interior, no spring required	100/pk	392611596	-
	1000/pk	392611596-10	
200uL Silanized Glass Insert, conical 4 point interior, no spring required	100/pk	392611855	-
	1000/pk	392611855-10	
200uL Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611594	-
	1000/pk	392611594-10	
200uL Silanized Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611595	-
	1000/pk	392611595-10	

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	-
	5/pk	392611517-5	

Polypropylene Gridded Vial Storage Box

- Holds (100) 12 x 32 mm vials
- Hinged lid w/ secure snap closure
- Alpha-Numeric numbers/letters on grids for easy sample ID
- Clear polypropylene for easy identification
- Stackable w/ writing panel on lid front for ID
- Rugged, compact design, and raised edges for non-slip storage
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Gridded Vial Storage Box	5/pk	50001	-



12 x 32 mm Polypropylene Crimp Top Vial Kits

- Unassembled convenience kits offer the vials and seals packaged together for ease of use and storage.
- The kits contain vials and 11mm aluminum seals with Teflon/rubber septa
- Chemically resistant polypropylene vials are an economical alternative for microsampling instead of using limited volume inserts
- Ideal for sodium analysis or pH sensitive samples
- Precision formed interior profile minimizes residual sample volume



Description	Qty	Part#	Price \$
Vial Kit, 0.25mL Polypropylene crimp top Vial, pulled point interior; 11mm Aluminum Seal w/ Teflon/rubber septum	100/pk	SN500588	-
Vial Kit, 0.30mL Polypropylene crimp top vial, conical formed interior, 11mm Aluminum Seal w/ Teflon/rubber septum	100/pk	SN200080	-
Vial Kit, 0.50mL Polypropylene crimp top vial, tapered interior profile, 11mm Aluminum seal w/ Teflon/rubber septum	100/pk	SN200082	-



12 x 32 mm Polypropylene Crimp Top Vials

- Chemically resistant polypropylene vials are an economical alternative for microsampling instead of using limited volume inserts
- Ideal for sodium analysis or pH sensitive samples
- Vials have a standard 11mm aluminum seal finish allowing use with 11 mm aluminum seals or snap caps
- Precision formed interior profile minimizes residual sample volume



Description	Qty	Part#	Price \$
100uL crimp top Polypropylene vials	100/pk	392611666	-
0.25mL Polypropylene Vial; Crimp top; pulled point interior profile	100/pk	SN200050	-
0.30mL Polypropylene Vial; Crimp Top; Conical bottom Interior	100/pk	SN500106	-
0.50mL Polypropylene Vial; Crimp top; tapered interior	100/pk	SN500112	-
750uL crimp top Polypropylene vials	100/pk	392611667	-



11mm Aluminum Crimp Caps with Septa

- Crimp-tight aluminum caps
- Convenient, clean pre-installed septa
- Three septa to choose from



Description	Qty	Part#	Price \$
11mm Crimp Cap, aluminum PTFE/Red rubber septa	100/pk	392611627	-
11mm Crimp Cap, aluminum PTFE/Butyl rubber septa	100/pk	392611632	-
11mm Crimp Cap, aluminum PTFE/Silicone septa	100/pk	392611631	-
11mm Crimp Cap, aluminum with PTFE/Red rubber septa	144/pk	99779701	-



11mm Colored Crimp Caps w/ Septa

- Crimp tight aluminum caps
- Five colors of caps for easy identification



Description	Qty	Part No.	Price \$
11mm crimp cap, aluminum, PTFE/ Red rubber liner	100/pk	392611627	-
	1000/pk	392611627-10	
11mm crimp cap, gold aluminum, PTFE/ Red rubber liner	100/pk	392611627GD	-
	1000/pk	392611627GD-10	
11mm crimp cap, blue aluminum, PTFE/ Red rubber liner	100/pk	392611627B	-
	1000/pk	392611627B-10	
11mm crimp cap, green aluminum, PTFE/ Red rubber liner	100/pk	392611627G	-
	1000/pk	392611627G-10	
11mm crimp cap, red aluminum, PTFE/ Red rubber liner	100/pk	392611627R	-
	1000/pk	392611627R-10	

11 mm Crimper & Decapper

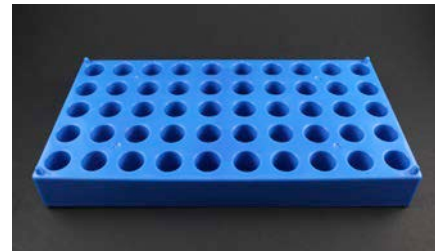
- Easy to use
- Adjustable crimping depth
- Permits minor handle pressure
- Decapper removes crimped seals from vials



Description	Qty	Part#	Price \$
Hand Crimper for 11mm Crimp Caps	1/pk	AL666011	-
Hand Decapper for 11mm Crimp Caps	1/pk	AL98711	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	-
	5/pk	392611517-5	-

Polypropylene Gridded Vial Storage Box

- Holds (100) 12 x 32 mm vials
- Hinged lid w/ secure snap closure
- Alpha-Numeric numbers/letters on grids for easy sample ID
- Clear polypropylene for easy identification
- Stackable w/ writing panel on lid front for ID
- Rugged, compact design, and raised edges for non-slip storage
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Gridded Vial Storage Box	5/pk	50001	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.



12x32mm Polypropylene Screw Top Vial Kits

- Unassembled convenience kits are provided with caps and septa pre-assembled
- Caps with septa are provided in an adjacent well
- Chemically resistant polypropylene vials are an economical alternative for microsampling instead of limited volume inserts
- Ideal for sodium analysis or pH sensitive samples
- Vials have a standard 8-425 GPI thread finish
- Precision formed interior profile minimizes residual sample volume



Description	Qty	Part#	Price \$
Vial Kit, 0.25mL Polypropylene Screw top vial, pulled point interior, 8-425 Black polypropylene closure with assembled 0.060" red Teflon/silicone	100/pk	SN200084	-
Vial Kit, 0.30mL Polypropylene screw top vial, conical formed interior, 8-425 black polypropylene closure with assembled 0.060" red Teflon/silicone	100/pk	SN200086	-
Vial Kit, 0.50mL Polypropylene screw top vial, conical formed interior, 8-425 black polypropylene closure with assembled 0.060" red Teflon/silicone	100/pk	SN200088	-



12x32mm Polypropylene Screw Top Vials

- Chemically resistant polypropylene vials are an economical alternative for microsampling instead of using limited volume inserts
- Ideal for sodium analysis or pH sensitive samples
- Vials have a standard 8-425 GPI thread finish
- Precision formed interior profile minimizes residual sample volume



Description	Qty	Part#	Price \$
100uL screw top Polypropylene vials	100/pk	392611665	-
0.25mL Polypropylene Vial; Screw thread; pulled-point interior profile	100/pk	SN200268	-
0.30mL Polypropylene Vial; Screw thread; conical bottom interior	100/pk	SN500118	-
0.50mL Polypropylene Vial; Screw thread; tapered interior	100/pk	SN500124	-



8mm Black Polypropylene Screw Caps

- Screw Open Hole Cap
- Inert Polypropylene
- Use with 8mm Septa



Description	Qty	Part#	Price \$
Screw Cap, 8mm black polypropylene, Cap Only	144/pk	1600069800	-



8mm Teflon/Silicone Septa

- Fits Standard opening caps
- Post baked Teflon/silicone septa for increased performance



Description	Qty	Part#	Price \$
Septa, 8mm red Teflon/silicone	144/pk	6900016900	-
Septa, 8mm blue Teflon/silicone	144/pk	390614901	-



8-425 Screw Caps With Septa

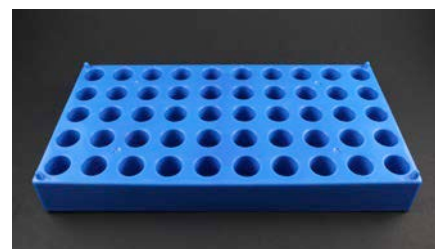
- Sure-sealing polypropylene caps
- Convenient, clean pre-inserted septa
- Four septa to choose from



Description	Qty	Part#	Price \$
8mm screw cap, black polypropylene with red PTFE silicone Septa	144/pk	99778800	-
8mm screw caps, black polypropylene with PTFE/butyl rubber Septa	100/pk	392611645	-
8mm screw caps, black polypropylene with PTFE Silicone Septa	100/pk	392611641	-
8mm screw caps, black polypropylene with PTFE/Silicone/PTFE Septa	100/pk	392611644	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	-
	5/pk	392611517-5	

Polypropylene Gridded Vial Storage Box

- Holds (100) 12 x 32 mm vials
- Hinged lid w/ secure snap closure
- Alpha-Numeric numbers/letters on grids for easy sample ID
- Clear polypropylene for easy identification
- Stackable w/ writing panel on lid front for ID
- Rugged, compact design, and raised edges for non-slip storage
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Gridded Vial Storage Box	5/pk	50001	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

12 x 32 mm, 2ml Shell Glass Vial Kits

- Large opening
- Improved autosampler needle accuracy & handling
- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one piece clamshell tray
- Economical alternative to screw top and crimp top vials
- Push-in polyethylene cap with thin molded center
- Cap has centering holder for 300uL inserts
- Easy transfer of samples. Fits most autosampler systems



Description	Qty	Part#	Price \$
Clear glass 2.0ml shell Vial; Polyethylene clear push-in caps with centering holder for insert	100/pk	392611580	-
Clear glass 2.0ml shell Vial; 300uL glass Insert; Polyethylene clear push-in caps with centering holder for insert	100/pk	392611581	-

Shell Glass Vials, Inserts & Caps

- Items sold individually
- Large opening; Type 1 borosilicate glass Vials
- Improved autosampler needle accuracy & handling
- Economical alternative to screw top and crimp top vials
- Push-in polyethylene cap with thin molded center
- Cap has centering holder for 300uL inserts
- Fits most autosampler systems



Description	Qty	Part#	Price \$
2.0ml shell glass vials	100/pk	392611662	-
300uL glass insert for shell vials	100/pk	392611664	-
Push-in caps with centering holder for insert, polyethylene	100/pk	392611663	-

8 x 40mm, 1ml Push-In Cap, Glass and Polypropylene Vial Kits



- Fits Waters 96 position tray
- Designed for best seal
- Push in cap for easy seal
- Lot to lot quality assurance with lot number coding
- Aqueous sample compatibility
- Caps have 0.01" center for easy needle penetration
- Type 1 borosilicate glass



Description	Qty	Part#	Price \$
Polypropylene 0.7ml limited volume vial; One piece natural polyethylene cap	250/pk	392611599	-
Clear glass 1.0ml push-in cap, shell vial; 150uL glass limited volume insert with compression spring; One piece natural polyethylene cap	250/pk	392611598	-
Clear glass 1.0ml push-in cap, shell vial; One piece natural polyethylene cap	250/pk	392611597	-



15 x 45 mm, 4ml Screw Top Glass Vial Kits

- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Use with: Bruker LC51; Gilson, Kontron MSI 660; Perkin Elmer Autosystem; Phillips LC-XP; Shimadzu AOC-14/1400, SIL-2AS, LC-10A; Spark Marathon; TosoH TSK-6080; Waters 48-Position, 717



Description	Qty	Part#	Price \$
Clear glass, 4ml screw top vial; screw cap, 13mm black polypropylene with 10 mil white virgin PTFE septa	100/pk	392611604	-
Amber glass, 4ml screw top vial; screw cap, 13mm black polypropylene with 10 mil white virgin PTFE septa	100/pk	392611605	-
Clear glass, 4ml screw top vial; screw cap, 13mm black polypropylene with PTFE/Silicone septa	100/pk	392611601	-
Clear glass, 4ml screw top vial; screw cap, 13mm black polypropylene with PTFE/butyl rubber septa	100/pk	392611852	-
Amber glass, 4ml screw top vial; screw cap, 13mm black polypropylene with PTFE/Silicone septa	100/pk	392611602	-
Amber glass, 4ml screw top vial; screw cap, 13mm black polypropylene with PTFE/butyl rubber septa	100/pk	392611853	-
Clear glass, 4ml screw top vial; 300uL glass insert w/ compression spring; Screw cap, 13mm black polypropylene with 10 mil white virgin PTFE septa	100/pk	392611606	-
Clear glass, 4ml screw top vial; 300uL Glass insert w/ compression spring; Screw cap, 13mm black polypropylene with PTFE/Silicone septa	100/pk	392611603	-
Clear glass, 4ml screw top vial; 300uL Glass insert w/ compression spring; Screw cap, 13mm black polypropylene with PTFE/butyl rubber septa	100/pk	392611854	-



15 x 45 mm, 4ml Screw Top Glass Vials

- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Use with: Bruker LC51; Gilson, Kontron MSI 660; Perkin Elmer Autosystem; Phillips LC-XP; Shimadzu AOC-14/1400, SIL-2AS, LC-10A; Spark Marathon; TosoH TSK-6080; Waters 48-Position, 717



Description	Qty	Part#	Price \$
4ml Clear Glass Screw Top Vials	100/Pk	392611604V	-
4ml Amber Glass Screw Top Vials	100/Pk	362611605AV	-



13mm Screw Caps with Septa

- Sure-sealing polypropylene caps
- Convenient, clean pre-inserted septa
- Three septa to choose from



Description	Qty	Part#	Price \$
13mm screw cap, black polypropylene with red PTFE silicone septa	100/Pk	362611604S	-
13mm screw cap, black polypropylene with orange PTFE/butyl rubber septa	100/Pk	362611604B	-
13mm screw cap, black polypropylene with 10 mil white virgin PTFE septa	100/Pk	362611604T	-



300uL Glass Insert for 15 x 45mm 4ml Vials

- 300uL inserts; Type 1 borosilicate glass
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self-aligning spring for correct insert position



Description	Qty	Part#	Price \$
300uL glass insert with compression spring	100/Pk	392611876	-

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more information.

Vial Septa Guide

Cap liners, also called vial septa, are selected according to the type of sample being analyzed. All vial septa contain small quantities of organic materials that might be detectable with the analytical instrumentation you are using. For most GC/MS and other high sensitivity detectors, we recommend the Ultra Sensitive GC/MS septum. It has very low levels of contaminants to minimize interference with the analysis, and has been qualified a major instrument manufacturer using GC/MS.

Chemical compatibility information is of a general nature, often measured by the degree of swelling and other effects the chemical has on the material, and should be used only as a guide. Compatibility within a chemical class can vary according to molecular weight of the solvent, and other factors. We recommend that you try different vial septa materials to determine the best one for your combination of sample type and analytical conditions.

Silicone is the most widely used material for vial septa. Our Ultra Sensitive GC/MS septa are specially prepared from silicone and PTFE materials to provide minimal septa contamination of the sample. Butyl rubber/PTFE septa are used with ketones and acids, and where Silicone septa do not perform well. Our silicone and butyl rubber septa, including Ultra Sensitive GC/MS septa, have a PTFE barrier layer to reduce the contact between the sample and septum materials.

Before the PTFE layer is punctured, the chemical compatibility properties of PTFE will determine the solvent compatibility. After puncture, the septa material will determine the compatibility.

Chemical	PTFE	Silicone	Butyl Rubber
Acids, concentrated	Excellent	Poor	Good
Acids, dilute	Excellent	Good	Excellent
Air and gas permeability	High	Moderate	Low
Alcohols	Excellent	Excellent	Good to excellent
Aliphatic hydrocarbons	Excellent	Poor	Poor
Alkalis	Excellent	Good to excellent	Good to excellent
Aromatic hydrocarbons	Excellent	Poor	Poor
Halogenated solvents	Excellent	Poor	Poor
Ketones	Excellent	Poor to good	Good to excellent
Water	Excellent	Excellent	Excellent

Once a vial septum has been penetrated by a needle, contamination on subsequent analyses can increase if sample components are able to extract chemicals from the vial septa. If contamination is apparent on the 2nd or later analyses from a vial, but is not apparent on the 1st analysis, you should use each vial for only one analysis.

Sample storage time and temperature before the analysis influence the extent that septa materials might be transferred into the sample. Good practice suggests shorter storage times and avoiding elevated storage temperatures. Also, volatile components can be lost with long storage times, even with the best vial septa available today.

GC/MS

Ultra Sensitive

- ♦ Agilent Compatible
- ♦ Beckman
- ♦ Bruker
- ♦ Carlo Erba
- ♦ Chrompack
- ♦ CTC Analytics
- ♦ Dani
- ♦ Dynatech
- ♦ Gilson
- ♦ Hewlett Packard
- ♦ Hitachi
- ♦ Merck
- ♦ Perkin-Elmer
- ♦ Pharmacia
- ♦ Shimadzu
- ♦ Siemens
- ♦ Spark
- ♦ Spectra-Physics
- ♦ Thermo Scientific
- ♦ Varian

GC/MS Ultra Sensitive Vial Kits and Accessories

- We recommend our line of GC/MS Ultra High Sensitive Vials & accessories for GC/MS & other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays
- Septa, Caps, & Inserts packaged in Ultra Clean "Tested" Foil
- GC/MS Ultra High Sensitive septa are specially prepared from high purity silicone and ultra clean PTFE (Teflon) to provide ultra low levels of contaminants to minimize interference with the analysis
- Has been qualified by a Major Chromatography Company using State-Of-The-Art GC/MS technology
- Type 1 Borosilicate Glass
- Lot to lot quality assurance with lot number coding



2 mL Screw Top 9mm Wide Opening Vial Kits

- 100 vials & caps w/ pre-inserted septa per kit (10 Kits/Case)
- Packaged in Ultra Clean White Non-Plastic Trays
- For GC/MS and other highly sensitive detectors



Description	Qty	Part#	Price \$
Clear Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392611979	-
	1000/case	392620530	-
Amber Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392612016	-
	100/pk	392612010	-
	1000/case	392620531	-



2 mL Screw Top 9mm Wide Opening Vial Kit w/ Fused 300uL Insert

- Packaged in Ultra Clean White Non-Plastic Trays
- For GC/MS and other highly sensitive detectors



Description	Qty	Part#	Price \$
Clear Glass Vials w/ Fused 300uL Insert & Pre-inserted Ultra GC/MS PTFE Septa	100/pk	392612001	-
Silanized Clear Glass Vials w/ Fused 300uL Insert & Pre-inserted Ultra GC/MS PTFE Septa	100/pk	392612004	-
Silanized Clear Glass Vials w/ Hanging 300uL Insert & Pre-inserted Ultra GC/MS PTFE Septa	100/pk	392612015	-



9 mm Red Polypropylene Caps with Septa Inserted

- Pre-inserted septa save time and reduce contamination
- Packaged in Ultra Clean "Tested" Foil
- GC/MS Ultra High Sensitive septa are specially prepared from high purity silicone and ultra clean PTFE (Teflon) to provide ultra low levels of contaminants to minimize interference with the analysis



Description	Qty	Part#	Price \$
9 mm Red Polypropylene Caps w/ Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392620504	-
	1000/case	392620505	



9 mm Septa

- For use in 9 mm screw caps
- Packaged in Ultra Clean "Tested" Foil
- For GC/MS & other highly sensitive detectors



Description	Qty	Part#	Price \$
9mm Ultra GC/MS/PTFE Septa	50/pk	392611985	-
	100/pk	392620508	
	1000/case	392620509	



12 x 32 mm, 2ml, 9mm Screw Top Wide Opening Glass Vials

- Packaged in Ultra Clean White Non-Plastic Trays
- For GC/MS and other highly sensitive detectors



Description	Qty	Part#	Price \$
Amber glass 2.0ml screw top wide opening vial	100/pk	392611654US	-
Clear glass 2.0ml screw top wide opening vial	100/pk	392611653US	-
Clear glass 2.0ml screw top wide opening vial, Silanized	100/pk	392611655US	-



Microvolume 200uL Glass Inserts for 12 x 32 mm 2mL Wide Opening Vials

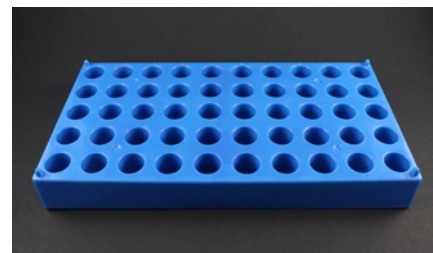
- Packaged in Ultra Clean "Tested" Foil
- For GC/MS and other highly sensitive detectors
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self-aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.
- Type 1 borosilicate glass



Description	Qty	Part#	Price \$
200uL Glass Insert, conical point interior, no spring required	100/pk	392611596US	-
	1000/pk	392611596-10US	
200uL Silanized Glass Insert, conical 4 point interior, no spring required	100/pk	392611855US	-
	1000/pk	392611855-10US	
200uL Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611594US	-
	1000/pk	392611594-10US	
200uL Silanized Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611595US	-
	1000/pk	392611595-10US	

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	-

Ultra Sensitive Graphite Ferrule, 450°C

- Temperature Programmed Conditioning at 400°C
- Fifty Programmed Ramp Ups in GC oven
- Stable to 450°C
- High Density Graphite
- Smooth & Clean Edges - Better than Conventional Graphite Ferrules
- Packaged in "Ultra Clean" Glass Bottles with Special Yellow "Keep Clean" Label

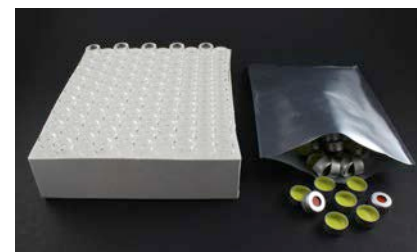


Description	Qty	Part#	Price \$
Ultra Sensitive 5mm Preconditioned Graphite Ferrules for Varian, Bruker & Agilent Chromatographs	2/pk	392534202	-
	10/pk	392534201	



2 mL Crimp Top Wide Opening Vial Kits

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays
- 40% larger opening reduces the chance of bent or broken needles
- Improved autosampler needle accuracy & handling
- Post baked Teflon/silicone septa for increased performance
- Type 1 borosilicate glass
- 11mm aluminum open hole crimp caps



Description	Qty	Part#	Price \$
Clear Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392620515	-
	1000/case	392620540	
Amber Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392620516	-
	1000/case	392620541	
Clear Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392612012	-



11 mm Crimp Caps with Septa Inserted

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean "Tested" Foil
- Pre-inserted septa save time and reduce contamination



Description	Qty	Part#	Price \$
11 mm Crimp Caps w/ Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392620521	-
	1000/case	392620522	



12 x 32 mm, 2ml Crimp Top Wide Opening Glass Vials

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays



Description	Qty	Part#	Price \$
Amber glass 2.0ml crimp top wide opening vial	100/pk	392611635US	-
Clear glass 2.0ml crimp top wide opening vial	100/pk	392611634US	-
Amber glass 2.0ml crimp top wide opening vial, silanized	100/pk	392611638US	-
Clear glass 2.0ml crimp top wide opening vial, silanized	100/pk	392611637US	-

11 mm Crimper & Decapper

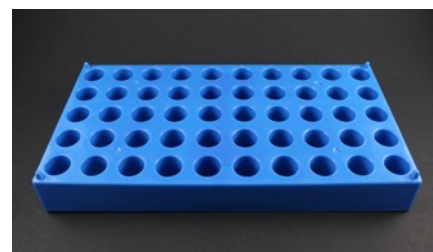
- Easy to use
- Adjustable crimping depth
- Permits minor handle pressure
- Decapper removes crimped seals from vials



Description	Qty	Part#	Price \$
Hand Crimper for 11mm Crimp Caps	1/pk	AL666011	-
Hand Decapper for 11mm Crimp Caps	1/pk	AL98711	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	-



Microvolume 200uL Glass Inserts for 12 x 32 mm 2mL Wide Opening Vials

- Packaged in Ultra Clean "Tested" Foil
- For GC/MS and other highly sensitive detectors
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self-aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.
- Type 1 borosilicate glass



Description	Qty	Part#	Price \$
200uL Glass Insert, conical point interior, no spring required	100/pk	392611596US	-
	1000/pk	392611596-10US	
200uL Silanized Glass Insert, conical 4 point interior, no spring required	100/pk	392611855US	-
	1000/pk	392611855-10US	
200uL Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611594US	-
	1000/pk	392611594-10US	
200uL Silanized Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611595US	-
	1000/pk	392611595-10US	



2 mL Snap Top Wide Opening Vial Kits

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays
- 40% larger opening reduces the chance of bent or broken needles
- Improved autosampler needle accuracy & handling
- Post baked Teflon/silicone septa for increased performance
- Type 1 borosilicate glass
- 11mm polyethylene open hole snap tops



Description	Qty	Part#	Price \$
Clear Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392620515US	-
	1000/case	392620540US	
Amber Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392620516US	-
	1000/case	392620541US	



11 mm Snap Tops with Septa Inserted

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean "Tested" Foil
- Pre-inserted septa save time and reduce contamination



Description	Qty	Part#	Price \$
11mm Natural Polyethylene Cap w/ Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392611871US	-
	1000/pk	392611871-10US	



12 x 32 mm, 2ml Snap Top Wide Opening Glass Vials

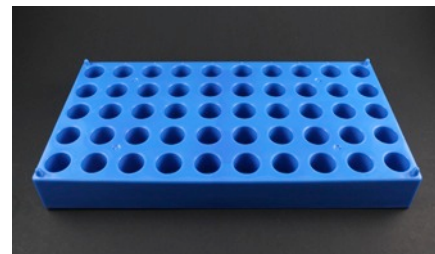
- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays



Description	Qty	Part#	Price \$
Amber glass 2.0ml snap top wide opening vial	100/pk	392611635US	-
Clear glass 2.0ml snap top wide opening vial	100/pk	392611634US	-
Amber glass 2.0ml snap top wide opening vial, silanized	100/pk	392611638US	-
Clear glass 2.0ml snap top wide opening vial, silanized	100/pk	392611637US	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	-



Microvolume 200uL Glass Inserts for 12 x 32 mm 2mL Wide Opening Vials

- Packaged in Ultra Clean "Tested" Foil
- For GC/MS and other highly sensitive detectors
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self-aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.
- Type 1 borosilicate glass



Description	Qty	Part#	Price \$
200uL Glass Insert, conical point interior, no spring required	100/pk	392611596US	-
	1000/pk	392611596-10US	
200uL Silanized Glass Insert, conical 4 point interior, no spring required	100/pk	392611855US	-
	1000/pk	392611855-10US	
200uL Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611594US	-
	1000/pk	392611594-10US	
200uL Silanized Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	392611595US	-
	1000/pk	392611595-10US	

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Email or fax us with your specifications for more information.



2 mL Screw Top Standard Opening Vial Kits, 8-425

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays
- Vials and caps with pre-inserted septa
- 8-425 Screw Caps



Description	Qty	Part#	Price \$
Clear Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392612022	-
	1000/pk	392612022-10	-
Amber Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392612022-A	-
	1000/pk	392612022-A10	-



8-425 Screw Caps w/ Septa

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean "Tested" Foil
- Pre-inserted septa save time and reduce contamination



Description	Qty	Part#	Price \$
8-425 Screw Caps w/ Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392612023	-
8-425 Screw Caps w/ Pre-inserted Ultra GC/MS/PTFE Septa	1000/case	392620557	-



8 mm Septa

- For use in 8-425 screw caps
- Packaged in Ultra Clean "Tested" Foil
- For GC/MS & other highly sensitive detectors



Description	Qty	Part#	Price \$
8mm Ultra GC/MS/PTFE Septa	100/pk	392612024	-
	1000/case	392620555	-



12 x 32 mm, 2ml, 8-425 Screw Top Standard Opening Glass Vials

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays



Description	Qty	Part#	Price \$
Amber glass 2.0ml screw top standard opening vial	100/pk	392611640US	-
Clear glass 2.0ml screw top standard opening vial	100/pk	392611639US	-
Amber glass 2.0ml screw top standard opening vial, silanized	100/pk	392611643US	-
Clear glass 2.0ml screw top standard opening vial, silanized	100/pk	392611642US	-



Microvolume 100uL Glass Inserts for 12 x 32 mm 2 mL Standard Opening Vials

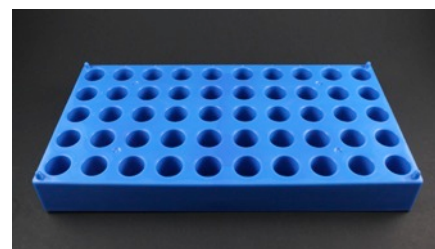
- Packaged in Ultra Clean "Tested" Foil
- For GC/MS and other highly sensitive detectors
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self-aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.
- Type 1 borosilicate glass



Description	Qty	Part#	Price \$
100uL glass Inserts , conical point interior, no spring required	100/pk	392611593US	-
	1000/pk	392611593-10US	
100uL glass Inserts with polymer spring, conical with precision point interior	100/pk	392611591US	-
	1000/pk	392611591-10US	
100uL Silanized glass Inserts , conical point interior, no spring required	100/pk	392611856US	-
	1000/pk	392611856-10US	
100uL Silanized glass Inserts with polymer spring, conical with precision point interior	100/pk	392611592US	-
	1000/pk	392611592-10US	

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage

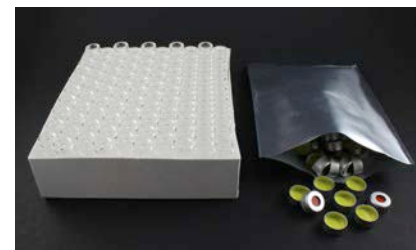


Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	-



12 x 32 mm, 2 mL Crimp Top Standard Opening Vial Kits

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays
- Type 1 borosilicate glass
- 11mm aluminum open hole crimp caps
- Post baked Teflon/silicone septa for increased performance



Description	Qty	Part#	Price \$
Clear Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392611508US	-
	1000/case	392611508-10US	-
Amber Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392611509US	-
	1000/case	392611509-10US	-



11 mm Crimp Caps w/ Septa Inserted

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean "Tested" Foil
- Pre-inserted septa save time and reduce contamination
- GC/MS Ultra High Sensitive septa are specially prepared from high purity silicone and ultra clean PTFE (Teflon) to provide ultra low levels of contaminants to minimize interference with the analysis



Description	Qty	Part#	Price \$
11 mm Crimp Caps w/ Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392620521	-
	1000/case	392620522	-



12 x 32 mm, 2ml Crimp Top Standard Opening Glass Vials

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays
- Type 1 borosilicate glass



Description	Qty	Part#	Price \$
Amber glass 2.0ml crimp top standard opening vial	100/pk	392611628US	-
Clear glass 2.0ml crimp top standard opening vial	100/pk	392611626US	-
Amber glass 2.0ml crimp top standard opening vial, Silanized	100/pk	392611629US	-
Clear glass 2.0ml crimp top standard opening vial, Silanized	100/pk	392611630US	-

11 mm Crimper & Decapper

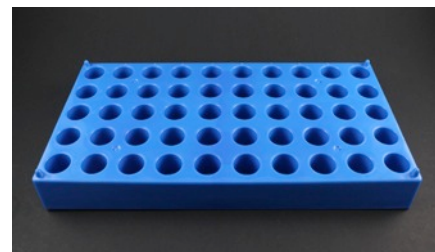
- Easy to use
- Adjustable crimping depth
- Permits minor handle pressure
- Decapper removes crimped seals from vials



Description	Qty	Part#	Price \$
Hand Crimper for 11mm Crimp Caps	1/pk	AL666011	-
Hand Decapper for 11mm Crimp Caps	1/pk	AL98711	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	-



Microvolume 100uL Glass Inserts for 12 x 32 mm 2 mL Standard Opening Vials

- Packaged in Ultra Clean "tested" Foil
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.
- Type 1 borosilicate glass



Description	Qty	Part#	Price \$
100uL glass Inserts , conical point interior, no spring required	100/pk	392611593US	-
	1000/pk	392611593-10US	
100uL glass Inserts with polymer spring, conical with precision point interior	100/pk	392611591US	-
	1000/pk	392611591-10US	
100uL Silanized glass Inserts , conical point interior, no spring required	100/pk	392611856US	-
	1000/pk	392611856-10US	
100uL Silanized glass Inserts with polymer spring, conical with precision point interior	100/pk	392611592US	-
	1000/pk	392611592-10US	



12 x 32 mm, 2 mL Snap Top Standard Opening Vial Kits

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays
- Type 1 borosilicate glass
- 11mm polyethylene open hole snap tops
- Post baked Teflon/silicone septa for increased performance



Description	Qty	Part#	Price \$
Clear Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392611501US	-
	1000/case	392611501-10US	-
Amber Glass Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392611502US	-
	1000/case	392611502-10US	-



11 mm Snap Tops w/ Septa Inserted

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean "Tested" Foil
- Pre-inserted septa save time and reduce contamination
- GC/MS Ultra High Sensitive septa are specially prepared from high purity silicone and ultra clean PTFE (Teflon) to provide ultra low levels of contaminants to minimize interference with the analysis



Description	Qty	Part#	Price \$
11mm Natural Polyethylene Cap w/ Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392611871US	-
	1000/pk	392611871-10US	-



12 x 32 mm, 2ml Snap Top Standard Opening Glass Vials

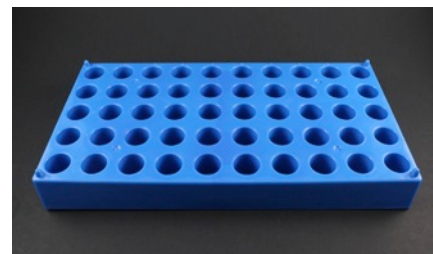
- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays
- Type 1 borosilicate glass



Description	Qty	Part#	Price \$
Amber glass 2.0ml snap top standard opening vial	100/pk	392611628US	-
Clear glass 2.0ml snap top standard opening vial	100/pk	392611626US	-
Amber glass 2.0ml snap top standard opening vial, Silanized	100/pk	392611629US	-
Clear glass 2.0ml snap top standard opening vial, Silanized	100/pk	392611630US	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	-

**Microvolume 100uL Glass Inserts for 12 x 32 mm 2 mL Standard Opening Vials**

- Packaged in Ultra Clean "tested" Foil
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.
- Type 1 borosilicate glass



Description	Qty	Part#	Price \$
100uL glass Inserts, conical point interior, no spring required	100/pk	392611593US	-
	1000/pk	392611593-10US	
100uL glass Inserts with polymer spring, conical with precision point interior	100/pk	392611591US	-
	1000/pk	392611591-10US	
100uL Silanized glass Inserts, conical point interior, no spring required	100/pk	392611856US	-
	1000/pk	392611856-10US	
100uL Silanized glass Inserts with polymer spring, conical with precision point interior	100/pk	392611592US	-
	1000/pk	392611592-10US	

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.



12 x 32 mm Polypropylene Crimp Top Vial Kits

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays
- Kit contains Vials & 11mm Aluminum Crimp Caps w/ Ultra GC/MS PTFE Septa
- Chemically resistant polypropylene vials are an economical alternative for microsampling instead of using limited volume inserts.
- Ideal for sodium analysis or pH sensitive samples.
- Precision formed interior profile minimizes residual sample volume.



Description	Qty	Part#	Price \$
100uL Crimp Top Polypropylene Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392611666US	-
	1000/case	392611666-10US	-
750uL Crimp Top Polypropylene Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392611667US	-
	1000/case	392611667-10US	-



12 x 32 mm Polypropylene Vials

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays
- Chemically resistant polypropylene vials are an economical alternative for microsampling instead of using limited volume inserts
- Ideal for sodium analysis or pH sensitive samples
- Precision formed interior profile minimizes residual sample volume



Description	Qty	Part#	Price \$
100uL Crimp Top Polypropylene Vials (only)	100/pk	392611666US9	-
	1000/case	392611666-10US9	-
750uL Crimp Top Polypropylene Vials (only)	100/pk	392611667US9	-
	1000/case	392611667-10US9	-



11 mm Aluminum Crimp Caps w/ Septa

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean "Tested" Foil
- Pre-inserted septa save time and reduce contamination
- GC/MS Ultra High Sensitive septa are specially prepared from high purity silicone and ultra clean PTFE (Teflon) to provide ultra low levels of contaminants to minimize interference with the analysis



Description	Qty	Part#	Price \$
11 mm Aluminum Crimp Cap w/ Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392620521	-
	1000/case	392620522	-

11 mm Crimper & Decapper

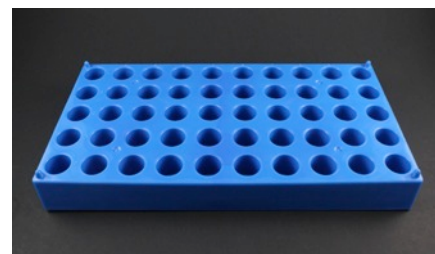
- Easy to use
- Adjustable crimping depth
- Permits minor handle pressure
- Decapper removes crimped seals from vials



Description	Qty	Part#	Price \$
Hand Crimper for 11mm Crimp Caps	1/pk	AL666011	-
Hand Decapper for 11mm Crimp Caps	1/pk	AL98711	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.



12 x 32 mm Polypropylene Screw Top Vial Kits

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays
- Kit contains Vials & Caps w/ Ultra GC/MS PTFE Septa
- Chemically resistant polypropylene vials are an economical alternative for microsampling instead of using limited volume inserts
- Ideal for sodium analysis or pH sensitive samples
- Precision formed interior profile minimizes residual sample volume



Description	Qty	Part#	Price \$
100uL Screw Top Polypropylene Vials w/ Caps & Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392611665US	-
	1000/case	392611665-10US	-



12 x 32 mm Polypropylene Vials

- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean White Non-Plastic Trays
- Chemically resistant polypropylene vials are an economical alternative for microsampling instead of using limited volume inserts
- Ideal for sodium analysis or pH sensitive samples
- Precision formed interior profile minimizes residual sample volume



Description	Qty	Part#	Price \$
100uL Screw Top Polypropylene Vials	100/pk	392611665US9	-
	1000/case	392611665-10US9	-



8 mm Screw Caps with Septa

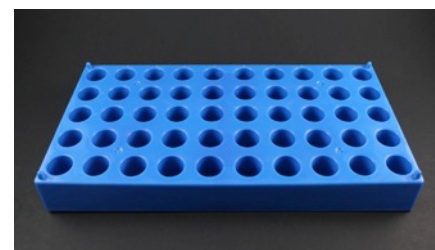
- For GC/MS and other highly sensitive detectors
- Packaged in Ultra Clean "Tested" Foil
- Pre-inserted septa save time and reduce contamination
- GC/MS Ultra High Sensitive septa are specially prepared from high purity silicone and ultra clean PTFE (Teflon) to provide ultra low levels of contaminants to minimize interference with the analysis



Description	Qty	Part#	Price \$
8mm Screw Caps w/ Pre-inserted Ultra GC/MS/PTFE Septa	100/pk	392612023	-
	1000/case	392620557	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
Polypropylene Vial Rack for 2.0ml, 12 x 32 mm vials, holds 50 vials	1/pk	392611517	-

GC/MS Ultra Sensitive Snap Top Headspace Vial Kits & Accessories

- For GC/MS & other highly sensitive detectors
- GC/MS Ultra High Sensitive septa are specially prepared from high purity silicone and ultra clean PTFE (Teflon) to provide ultra low levels of contaminants to minimize interference with the analysis
- Has been qualified by a Major Chromatography Company using State-Of-The-Art GC/MS technology
- Ideal for Large Samples or Solvents



20 mm Ultra Headspace Vial Kits

- Type 1 Borosilicate Glass Vials
- Packaged in Ultra Clean White Non-Plastic Trays
- Septa & Caps packaged in Ultra Clean "Tested" Foil
- Polyethylene Snap Tops with 8mm hole



Description	Qty	Part#	Price \$
5ml Ultra Solvent Vial Kit, Includes: Vials & Snap Tops w/ Ultra Septa Pre-inserted, 20x 38mm	4/pk	392611980	-
	50/pk	392611981	-
	100/pk	392611982	-
10ml Ultra Vial Kit, Includes: Vials & Snap Tops w/ Ultra Septa Pre-inserted, 22 x 46mm	50/pk	392612006	-
	100/pk	392612007	-
Ultra Vial Starter Pack Contains 2ml (10 ea.), 5ml (6 ea.) and 10ml (5 ea.) Vials and Caps w/ Septa	1 ea.	392611978	-



20 mm Ultra Headspace Vials

- Type 1 Borosilicate Glass Vials
- Packaged in Ultra Clean White Non-Plastic Trays



Description	Qty	Part#	Price \$
5ml Ultra Vials, 20 x 38 mm (Vials only)	50/pk	392611980US	-
	100/pk	392611980-10US	-
10ml Ultra Vials, 22 x 46 mm (Vial only)	50/pk	392611983US	-
	100/pk	392611983-10US	-



20 mm Ultra GC/MS Snap Tops and Septa

- Pre-inserted septa save time and reduce contamination
- Polyethylene Snap Tops have 8mm opening
- Packaged in Ultra Clean "Tested" Foil



Description	Qty	Part#	Price \$
20 mm Snap Tops, 6 mm hole, Ultra GC/MS Septa	50/pk	392611984	-
Ultra GC/MS Septa for 20 mm Snap Tops	50/pk	392611986	-
	100/pk	392611988	-

Ultra Sensitive High Temp/Low Bleed Septa, 400°C Max

- Injector Temperature 400°C
- Conditioned For High Sensitivity Analysis, Ultra Low Bleed
- Precision Molded, Easy to Pierce
- Premium Platinum Cured Silicone
- Precise Fit, No Flared Edges
- No Ghost Peaks
- Packaged in Ultra Clean Wide Mouth Glass Bottles, Ready to Use



Description	Qty	Part#	Price \$
Ultra Sensitive High Temp/Low Bleed Septa 5 mm (3/16 in.)	50/Pk	40000	-
	100/Pk	40000-100	-
Ultra Sensitive High Temp/Low Bleed Septa 9 mm (11/32 in.)	50/Pk	40001	-
	100/Pk	40001-100	-
Ultra Sensitive High Temp/Low Bleed Septa 9.5 mm (3/8 in.)	50/Pk	40002	-
	100/Pk	40002-100	-
Ultra Sensitive High Temp/Low Bleed Septa 11 mm (7/16 in.)	50/Pk	40003	-
	100/Pk	40003-100	-
Ultra Sensitive High Temp/Low Bleed Septa 11.5 mm (11/24 in.)	50/Pk	40004	-
	100/Pk	40004-100	-
Ultra Sensitive High Temp/Low Bleed Septa 12.5 mm (1/2 in.)	50/Pk	40005	-
	100/Pk	40005-100	-
Ultra Sensitive High Temp/Low Bleed Septa 17 mm (21/32 in.)	50/Pk	40006	-
	100/Pk	40006-100	-
Ultra Sensitive High Temp/Low Bleed Septa Shimadzu Plug	50/Pk	392611693US	-
	100/Pk	392611694US	-

Ultra Sensitive High Temp/Low Bleed Septa, 400°C Max (w/ Guide Hole)

- Injector Temperature 400°C
- Guide Hole for Easy Needle Insertion
- Conditioned For High Sensitivity Analysis, Ultra Low Bleed
- Precision Molded, Easy to Pierce
- Premium Platinum Cured Silicone
- Precise Fit, No Flared Edges
- No Ghost Peaks
- Packaged in Ultra Clean Wide Mouth Glass Bottles, Ready to Use



Description	Qty	Part#	Price \$
Ultra Sensitive High Temp/Low Bleed Septa 5 mm (3/16 in.) w/ Guide Hole	50/Pk	40008	-
	100/Pk	40008-100	-
Ultra Sensitive High Temp/Low Bleed Septa 9 mm (11/32 in.) w/ Guide Hole	50/Pk	40009	-
	100/Pk	40009-100	-
Ultra Sensitive High Temp/Low Bleed Septa 9.5 mm (3/8 in.) w/ Guide Hole	50/Pk	40010	-
	100/Pk	40010-100	-
Ultra Sensitive High Temp/Low Bleed Septa 11 mm (7/16 in.) w/ Guide Hole	50/Pk	40011	-
	100/Pk	40011-100	-
Ultra Sensitive High Temp/Low Bleed Septa 11.5 mm (11/24 in.) w/ Guide Hole	50/Pk	40012	-
	100/Pk	40012-100	-
Ultra Sensitive High Temp/Low Bleed Septa 12.5 mm (1/2 in.) w/ Guide Hole	50/Pk	40013	-
	100/Pk	40013-100	-
Ultra Sensitive High Temp/Low Bleed Septa 17 mm (21/32 in.) w/ Guide Hole	50/Pk	40014	-
	100/Pk	40014-100	-
Ultra Sensitive High Temp/Low Bleed Septa Shimadzu Plug w/ Guide Hole	50/Pk	392611693US	-
	100/Pk	392611694US	-

Ultra Sensitive General Purpose Medium Temp/Low Bleed Septa, 325°C Max

- Injector Temperature 325°C
- Conditioned For High Sensitivity Analysis, Ultra Low Bleed
- Precision Molded, Easy to Pierce
- Premium Platinum Cured Silicone
- Precise Fit, No Flared Edges
- No Ghost Peaks
- Packaged in Ultra Clean Wide Mouth Glass Bottles, Ready to Use



Description	Qty	Part#	Price \$
Ultra Sensitive High Temp/Low Bleed Septa 5 mm (3/16 in.)	50/Pk	40016	-
	100/Pk	40016-100	-
Ultra Sensitive High Temp/Low Bleed Septa 9 mm (11/32 in.)	50/Pk	40017	-
	100/Pk	40017-100	-
Ultra Sensitive High Temp/Low Bleed Septa 9.5 mm (3/8 in.)	50/Pk	40018	-
	100/Pk	40018-100	-
Ultra Sensitive High Temp/Low Bleed Septa 11 mm (7/16 in.)	50/Pk	40019	-
	100/Pk	40019-100	-
Ultra Sensitive High Temp/Low Bleed Septa 11.5 mm (11/24 in.)	50/Pk	40020	-
	100/Pk	40020-100	-
Ultra Sensitive High Temp/Low Bleed Septa 12.5 mm (1/2 in.)	50/Pk	40021	-
	100/Pk	40021-100	-
Ultra Sensitive High Temp/Low Bleed Septa 17 mm (21/32 in.)	50/Pk	40022	-
	100/Pk	40022-100	-

Ultra Sensitive General Purpose Medium Temp/Low Bleed Septa, 325°C Max (w/ Guide Hole)

- Injector Temperature 325°C
- Guide Hole for Easy Needle Insertion
- Conditioned For High Sensitivity Analysis, Ultra Low Bleed
- Precision Molded, Easy to Pierce
- Premium Platinum Cured Silicone
- Precise Fit, No Flared Edges
- No Ghost Peaks
- Packaged in Ultra Clean Wide Mouth Glass Bottles, Ready to Use



Description	Qty	Part#	Price \$
Ultra Sensitive High Temp/Low Bleed Septa 5 mm (3/16 in.) w/ Guide Hole	50/Pk	40024	-
	100/Pk	40024-100	-
Ultra Sensitive High Temp/Low Bleed Septa 9 mm (11/32 in.) w/ Guide Hole	50/Pk	40025	-
	100/Pk	40025-100	-
Ultra Sensitive High Temp/Low Bleed Septa 9.5 mm (3/8 in.) w/ Guide Hole	50/Pk	40026	-
	100/Pk	40026-100	-
Ultra Sensitive High Temp/Low Bleed Septa 11 mm (7/16 in.) w/ Guide Hole	50/Pk	40027	-
	100/Pk	40027-100	-
Ultra Sensitive High Temp/Low Bleed Septa 11.5 mm (11/24 in.) w/ Guide Hole	50/Pk	40028	-
	100/Pk	40028-100	-
Ultra Sensitive High Temp/Low Bleed Septa 12.5 mm (1/2 in.) w/ Guide Hole	50/Pk	40029	-
	100/Pk	40029-100	-
Ultra Sensitive High Temp/Low Bleed Septa 17 mm (21/32 in.) w/ Guide Hole	50/Pk	40030	-
	100/Pk	40030-100	-

Thermo Fisher Scientific Autosampler Vials



8mm Standard Opening Thermo Vial Kits

- 8mm screw thread design
- Standard opening
- Post baked Teflon/silicone septa for increased performance. Compatible with most autosamplers
- Lot to lot quality assurance with lot number coding. Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one-piece clamshell tray
- Caps, septa, microvolume inserts and silane treated vials available



Description	Qty	Part No.	Price \$
Clear Glass 1.8ml screw top standard opening vial; Screw cap, 8mm black polypropylene with Yellow PTFE/silicone septa	100/pk	A4954-010	-
Amber Glass 1.8ml screw top standard opening vial; Screw cap, 8mm black polypropylene with Yellow PTFE/silicone septa	100/pk	A4954-010A	-
Screw Top Vials Kit - includes: 12x32mm screw top vials 1.8ml, Blue PTFE/Silicone liner installed into the 8-425 black polypropylene cap. Borosilicate glass 51, amber. Clam shell package. Use 100uL inserts for limiting volume.	100/pk	A4967-010	-
Screw Top Vials Kit - includes: 12x32mm screw top vials 1.8ml, Blue PTFE/Silicone liner installed into the 8-425 black polypropylene cap. Borosilicate glass 33, clear. Clam shell package. Use 100uL inserts for limiting volume.	100/pk	60180-203	-
Amber Screw Top Vials Kit - includes: 12x32mm screw top vials 1.8ml, Blue PTFE/Silicone liner installed into the 8-425 black polypropylene cap. Borosilicate glass 51, amber. Clam shell package. Use 100uL inserts for limiting volume.	100/pk	60180-204	-



8mm Standard Opening Thermo Vials

- 8mm screw thread design
- Standard opening
- Post baked Teflon/silicone septa for increased performance. Compatible with most autosamplers
- Lot to lot quality assurance with lot number coding. Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one-piece clamshell tray
- Caps, septa, microvolume inserts and silane treated vials available

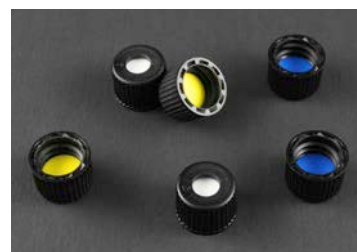


Description	Qty	Part No.	Price \$
Clear glass 1.8ml screw top standard opening vial	100/pk	A4951-010	-
	1000/pk	A4951-100	
Amber glass 1.8ml screw top standard opening vial	100/pk	A4966-010	-
	1000/pk	A4966-100	



8mm Thermo Caps w/ Septa

- Sure-sealing polypropylene caps
- Convenient, clean pre-inserted septa
- Four septa to choose from



Description	Qty	Part No.	Price \$
Autosampler Screw Cap, 8mm black polypropylene, No Septa	100/pk	A4953-010	-
	1000/pk	A4953-100	-
8mm screw caps, black polypropylene w/ Blue PTFE Silicone Septa Installed, 65 mils	100/pk	A4969-010	-
	1000/pk	A4969-100	-
8mm screw caps, black polypropylene w/ Blue PTFE Silicone Septa Installed, 65 mils	100/pk	A4979-010	-
	1000/pk	A5590-020	-
8mm Black Polypropylene Cap w/ Teflon Liner, 10 mils, .328" dia. not installed	1000/pk	A5590-010	-
8mm screw caps, black polypropylene w/ Yellow PTFE Silicone Septa Installed, 45 mils	1000/pk	A4969-100Y	-



8mm Septa & Liners

- Fits Standard opening 8-425 polypropylene caps
- Post baked Teflon/silicone septa for increased performance



Description	Qty	Part No.	Price \$
Autosampler Septa, 8mm blue Teflon/silicone 65 mils	100/pk	A4952-010	-
	1000/pk	A4952-100	-
Teflon Liner, 10 mils, .328" dia.	100/pk	A4968-010	-
	1000/pk	A4968-100	-
Autosampler Septa, 8mm Yellow Teflon/silicone 45 mils	100/pk	A4952-010Y	-
	1000/pk	A4952-100Y	-



100uL Glass Inserts

- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.
- Type 1 borosilicate glass



Description	Qty	Part No.	Price \$
100uL Glass Conical Insert, No Spring Required	100/pk	A4961-010	-
	1000/pk	A4961-100	-



9mm Wide Opening Thermo Kits & Vials

- 9mm thread design, 40% larger opening
- Reduces the chance of bent or broken needles
- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one-piece clamshell tray



Description	Qty	Part No.	Price \$
Clear 1.8ml screw wide; 250uL Glass Insert, no spring; Cap, 9mm Black polypropylene with Blue PTFE/Silicone septa	100/pk	60053-62017	-
Amber 1.8ml screw wide; 250uL Glass Insert, no spring; Cap, 9mm Black polypropylene with Blue PTFE/Silicone septa	100/pk	60053-62017A	-



9mm Wide Opening Thermo Vials

- 9mm thread design, 40% larger opening
- Reduces the chance of bent or broken needles
- Lot to lot quality assurance with lot number coding.
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one-piece clamshell tray



Description	Qty	Part No.	Price \$
Clear Glass 1.8ml, 9mm Screw Top Wide Opening Vial	100/pk	60053-01013	-
Amber Glass 1.8ml, 9mm Screw Top Wide Opening Vial	100/pk	60053-01013A	-



9mm Caps & Septa

- Compatible with most robotic autosamplers
- Sure-sealing polypropylene caps
- Available with septa installed



Description	Qty	Part No.	Price \$
9mm Screw Caps, Black polypropylene (Caps Only)	100/pk	60053-01015	-
9mm Screw Caps, Red polypropylene (Caps Only)	100/pk	60053-01015R	-
9mm Septa, Blue PTFE/Silicone, .040" thk. (Septa Only)	100/pk	60053-01016	-
9mm Septa, Red PTFE/Silicone, .040" thk. (Septa Only)	100/pk	60053-01016R	-



9mm Caps w/ Pre-Inserted Septa

- Compatible with most robotic autosamplers
- Sure-sealing polypropylene caps
- Convenient, clean pre-inserted septa
- PTFE/Silicone Septa



Description	Qty	Part No.	Price \$
9mm Screw Caps, Black polypropylene w/ Blue PTFE/Silicone Septa	100/pk	60053-01015BS	-
	1000/pk	60053-01015BS-10	-
9mm Screw Caps, Red polypropylene w/ Red PTFE/Silicone Septa	100/pk	60053-01015RS	-
	1000/pk	60053-01015RS-10	-



250uL Inserts

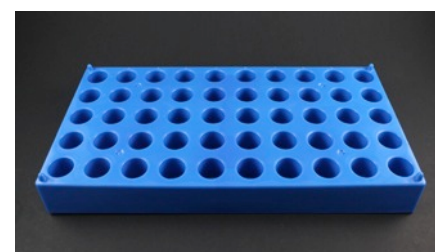
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self-aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.
- Type 1 borosilicate glass



Description	Qty	Part#	Price \$
250uL Glass Insert, conical point interior, no spring required	100/pk	60053-01014	-
	1000/pk	60053-01014-10	-
250uL Silanized Glass Insert, conical point interior, no spring required	100/pk	60053-01014-11	-
	1000/pk	60053-01014-12	-
250uL Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	60053-01014-13	-
	1000/pk	60053-01014-14	-
250uL Silanized Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	60053-01014-15	-
	1000/pk	60053-01014-16	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage

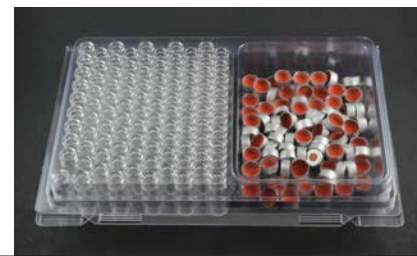


Description	Qty	Part No.	Price \$
PP Vial Rack, 50 hole, Polypropylene	1/pk	A4970-010	-



Crimp Top Standard Opening Thermo Vial Kits

- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one-piece clamshell tray
- 11mm aluminum open hole crimp caps
- Post baked Teflon/silicone septa for increased performance



Description	Qty	Part No.	Price \$
Clear glass 2.0ml crimp top standard opening vial; Crimp cap, 11mm silver aluminum with PTFE/red rubber septa. Use 100uL inserts for limiting volume.	100/pk	A4957-010	-
	1000/pk	A4957-100	-
Amber glass 1.8ml crimp top standard opening vial; Crimp cap, 11mm silver aluminum with PTFE/red rubber septa. Use 100uL inserts for limiting volume.	100/pk	A4965-010	-
	1000/pk	A4965-100	-



Crimp Top Standard Opening Thermo Vials

- Standard opening. Compatible with most autosamplers.
- Lot to lot quality assurance with lot number coding.
- Type 1 borosilicate glass. Packaged in one-piece clamshell tray.
- 11mm aluminum open hole crimp caps available.



Description	Qty	Part No.	Price \$
Clear glass 2.0ml crimp top standard opening vial	100/pk	A4956-010	-
	1000/pk	A4956-100	-
Clear glass 2.0ml crimp top standard opening vial, Silanized	100/pk	A4956-010CS	-
	1000/pk	A4956-100CS	-
Amber glass 2.0ml crimp top standard opening vial	100/pk	A4964-010	-
	1000/pk	A4964-100	-
Amber glass 2.0ml crimp top standard opening vial, Silanized	100/pk	A4964-010AS	-
	1000/pk	A4964-100AS	-



Crimp Top Caps w/ Septa

- Crimp tight aluminum caps
- Five colors of caps for easy identification
- PTFE/ Red Rubber Liners



Description	Qty	Part No.	Price \$
11mm crimp cap, aluminum, PTFE/ Red rubber liner	100/pk	A4955-010	-
	1000/pk	A4955-100	-
11mm crimp cap, gold aluminum, PTFE/ Red rubber liner	100/pk	A4955-020	-
	1000/pk	A4955-200	-
11mm crimp cap, blue aluminum, PTFE/ Red rubber liner	100/pk	A4955-030	-
	1000/pk	A4955-300	-
11mm crimp cap, green aluminum, PTFE/ Red rubber liner	100/pk	A4955-040	-
	1000/pk	A4955-400	-
11mm crimp cap, red aluminum, PTFE/ Red rubber liner	100/pk	A4955-050	-
	1000/pk	A4955-500	-



100uL Inserts

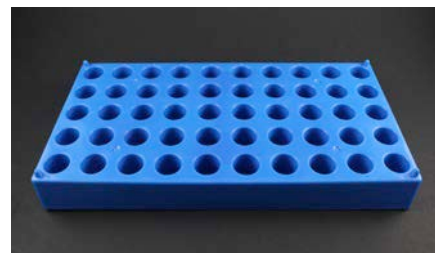
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.
- Type 1 borosilicate glass



Description	Qty	Part No.	Price \$
100uL Glass Conical Insert, No Spring Required	100/pk	A4961-010	-
	1000/pk	A4961-100	-
100uL Glass Inserts with polymer spring, conical with precision point interior	100/pk	A4961-012	-
	1000/pk	A4961-202	-
100uL Silanized glass Inserts , conical point interior, no spring required	100/pk	A4961-013	-
	1000/pk	A4961-203	-
100uL Silanized glass Inserts with polymer spring, conical with precision point interior	100/pk	A4961-014	-
	1000/pk	A4961-204	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
PP Vial Rack, 50 hole, Polypropylene	1/pk	A4970-010	-

11 mm Crimper & Decapper

- Easy to use
- Adjustable crimping depth
- Permits minor handle pressure
- Decapper removes crimped seals from vials

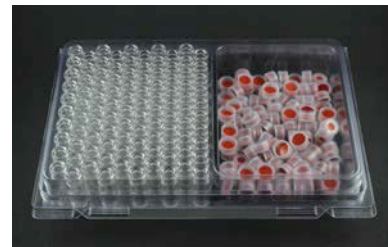


Description	Qty	Part#	Price \$
Hand Crimper for 11mm Crimp Caps	1/pk	60180-261	-
Hand Decapper for 11mm Crimp Caps	1/pk	60180-262	-



Snap Top Wide Opening Thermo Vial Kits

- 40% larger opening
- Reduces the chance of bent or broken needles
- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one piece clamshell tray



Description	Qty	Part No.	Price \$
Clear glass 1.8ml snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/red rubber septa. Use 250uL inserts for limiting volume	100/pk	A4962-010	-
Amber glass 1.8ml snap top wide opening vial; Snap cap, 11mm natural polyethylene with PTFE/red rubber septa. Use 250uL inserts for limiting volume	100/pk	A4962-010A	-



Snap Tops

- Snap-tight polyethylene Snap Caps
- Convenient, clean pre-installed septa



Description	Qty	Part No.	Price \$
Snap Caps, 11mm natural polyethylene with PTFE/red rubber septa	100/pk	A4963-010	-



250uL Inserts

- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self-aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.
- Type 1 borosilicate glass

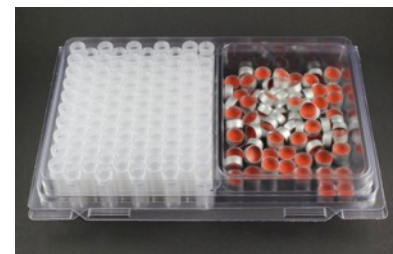


Description	Qty	Part#	Price \$
250uL Glass Insert, conical point interior, no spring required	100/pk	60053-01014	-
	1000/pk	60053-01014-10	
250uL Silanized Glass Insert, conical 4 point interior, no spring required	100/pk	60053-01014-11	-
	1000/pk	60053-01014-12	
250uL Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	60053-01014-13	-
	1000/pk	60053-01014-14	
250uL Silanized Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	60053-01014-15	-
	1000/pk	60053-01014-16	



Polypropylene Thermo Vial Kits

- Unassembled convenience kits offer the vials and seals packaged together for ease of use and storage. The kits contain vials and 11mm aluminum seals with Teflon/rubber septa.
- Chemically resistant polypropylene vials are an economical alternative for microsampling instead of using limited volume inserts.
- Ideal for sodium analysis or pH sensitive samples.
- Precision formed interior profile minimizes residual sample volume.



Description	Qty	Part No.	Price \$
Vial Kit, 100uL Polypropylene crimp top Vial, pulled point interior; 11mm Aluminum Seal w/ PTFE/red rubber septa	100/pk 1000/pk	A4959-010 A4959-100	-
Vial Kit, 600uL Polypropylene crimp top vial, conical formed interior, 11mm Aluminum Seal w/ PTFE/red rubber septa	100/pk 1000/pk	A4958-010 A4958-100	-



Polypropylene Thermo Vials

- Chemically resistant polypropylene vials are an economical alternative for microsampling instead of using limited volume inserts.
- Ideal for sodium analysis or pH sensitive samples.
- Vials have a standard 11mm aluminum seal finish allowing use with 11 mm aluminum seals or snap caps.
- Precision formed interior profile minimizes residual sample volume.



Description	Qty	Part No.	Price \$
100uL Crimp top Polypropylene vials	1000/pk	A5130-100	-
600uL Polypropylene Vial; Crimp top; tapered interior	1000/pk	A5129-100	-



Crimp Top Caps w/ Septa

- Crimp tight aluminum caps
- Five colors of caps for easy identification
- PTFE/ Red Rubber Liner



Description	Qty	Part No.	Price \$
11mm crimp cap, aluminum, PTFE/ Red rubber liner	100/pk 1000/pk	A4955-010 A4955-100	-
11mm crimp cap, gold aluminum, PTFE/ Red rubber liner	100/pk 1000/pk	A4955-020 A4955-200	-
11mm crimp cap, blue aluminum, PTFE/ Red rubber liner	100/pk 1000/pk	A4955-030 A4955-300	-
11mm crimp cap, green aluminum, PTFE/ Red rubber liner	100/pk 1000/pk	A4955-040 A4955-400	-
11mm crimp cap, red aluminum, PTFE/ Red rubber liner	100/pk 1000/pk	A4955-050 A4955-500	-

11 mm Crimper & Decapper

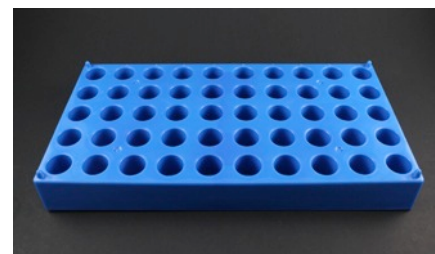
- Easy to use
- Adjustable crimping depth
- Permits minor handle pressure
- Decapper removes crimped seals from vials



Description	Qty	Part#	Price \$
Hand Crimper for 11mm Crimp Caps	1/pk	60180-261	-
Hand Decapper for 11mm Crimp Caps	1/pk	60180-262	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage

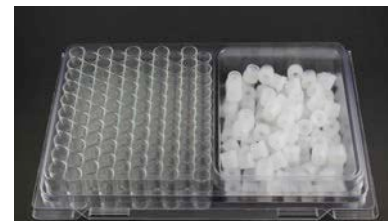


Description	Qty	Part No.	Price \$
PP Vial Rack, 50 hole, Polypropylene	1/pk	A4970-010	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

Shell Thermo Vial Kits

- Large opening.
- Improved autosampler needle accuracy & handling.
- Lot to lot quality assurance with lot number coding.
- Type 1 borosilicate glass.
- Packaged in a sturdy, easy open, one piece clamshell tray.
- Economical alternative to screw top and crimp top vials.
- Push-in polyethylene cap with thin molded center.
- Cap has centering holder for 100uL inserts.
- Easy transfer of samples.



Description	Qty	Part No.	Price \$
Clear glass 2.0ml shell Vial; Polyethylene clear push-in caps with centering holder for insert	100/pk	A4948-010	-
Clear glass 2.0ml shell Vial; 100uL glass Insert; Polyethylene clear push-in caps with centering holder for insert	100/pk	60053-62008	-

Shell Thermo Vials, Caps, & Inserts

- Vials have large opening for easy transfer of samples
- Improved autosampler needle accuracy & handling
- Type 1 borosilicate glass
- Economical alternative to screw top and crimp top vials
- Molded polypropylene natural caps
- Inserts fit directly into molded cap



Description	Qty	Part No.	Price \$
2.0ml Shell Clear Glass vials	100/pk	A4946-010	-
	1000/pk	A4946-100	
Shell Vial Caps Natural, .010" Molded Septum	100/pk	60053-40009	-
100uL glass insert for shell vials	100/pk	A4949-010	-
	1000/pk	A4949-100	

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.



CE Thermo Standard Opening Vial Kits

- For Capillary Electrophoresis Applications
- Cross slit liner for easy penetration
- Lot to lot quality assurance with lot number coding
- Available in Type 1 borosilicate glass or polypropylene
- Packaged in a sturdy, easy open, one piece clamshell tray

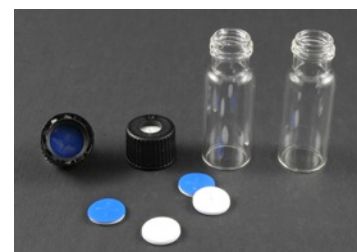


Description	Qty	Part No.	Price \$
CE Ultra Vial Kit - Includes: 12x32mm screw top vials 1.8ml, Blue PTFE/ White Silicone Cross Slit liner installed into the 8-425 black polypropylene cap. Borosilicate glass 33, clear. Clam shell package.	100/pk	A5400-010	-
CE Ultra 100uL PP Vial Kit - Includes: 12x32mm Screw Top Polypropylene vials, 100uL, Blue PTFE/ White Silicone Cross Slit liner installed into the 8-425 black polypropylene cap. Clam shell package.	100/pk	A5446-010	-
CE Ultra 500uL PP Vial Kit - Includes: 12x32mm Screw Top Polypropylene vials, 500uL, Blue PTFE/ White Silicone Cross Slit liner installed into the 8-425 black polypropylene cap. Clam shell package.	100/pk	A5447-010	-



CE Thermo Standard Opening Vials, Caps, & Septa

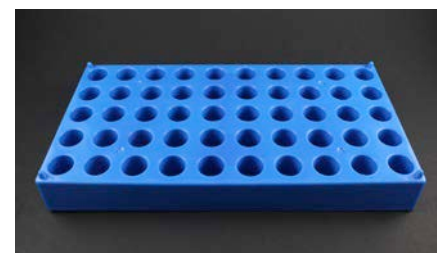
- For Capillary Electrophoresis Applications
- Cross slit liner for easy penetration
- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Caps have pre-installed cross slit septa



Description	Qty	Part No.	Price \$
CE Ultra Screw Top Vials 1.8ml, Clear Glass	100/pk	A5403-010	-
CE Ultra Vial Caps with Blue PTFE/ White Silicone Cross Slit Septa installed	100/pk	A5402-010	-
CE Ultra Blue PTFE/ White Silicone Cross Slit Septa	100/pk	A5401-010	-

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



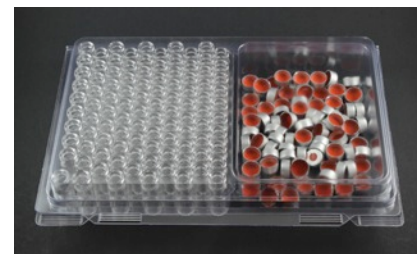
Description	Qty	Part No.	Price \$
PP Vial Rack, 50 hole, Polypropylene	1/pk	A4970-010	-

HP/Agilent Vials Compatible

12 x 32 mm, 2ml Crimp Top Wide Opening Glass Vial Kits



- 40% larger opening.
- Post baked Teflon/silicone septa for increased performance.
- Type 1 borosilicate glass.
- Packaged in a sturdy, easy open, one-piece clamshell.
- New Improved Teflon/red rubber septa for increased performance.

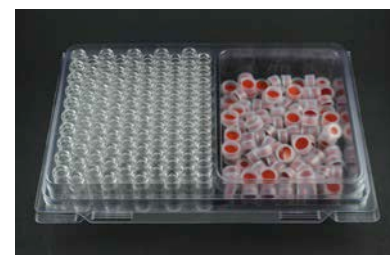


Description	Qty	Part No.	Price \$
Crimp Top Vials Kit - includes: 12 x 32mm wide mouth crimp top vials 2.0 ml, 11mm aluminum crimp seals with PTFE/natural rubber liner installed into the cap. Borosilicate glass 33, clear. Clam shell package. Use 250uL inserts for limiting volume.	100/pk 1000/pk	60180-209 60180-209-10	-
Crimp Top Vials Kit - includes: 12 x 32mm wide mouth crimp top vials 2.0 ml, 11mm aluminum crimp seals with Red PTFE/silicone/PTFE liner installed into the cap. Borosilicate glass 33, clear. Clam shell package. Use 250uL inserts for limiting volume.	100/pk 1000/pk	60180-210 60180-210-10	-

12 x 32 mm, 2ml Snap Top Wide Opening Glass Vial Kits



- 40% larger opening.
- Reduces the chance of bent or broken needles.
- Packaged in a sturdy, easy open, one piece clamshell tray.

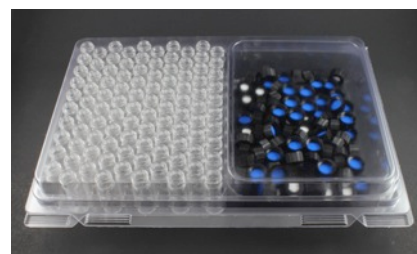


Description	Qty	Part No.	Price \$
Snap Vials Kit - includes: 12 x 32 mm wide mouth snap vials 2.0 ml, 11mm polypropylene snap seals with PTFE/natural rubber liner installed into the cap. Borosilicate glass 33, clear. Clam shell package. Use 250uL inserts for limiting volume.	100/pk 1000/pk	60180-221 60180-221-10	-
Snap Vials Kit - includes: 12 x 32 mm wide mouth snap vials 2.0 ml, 11mm polypropylene snap seals with Red PTFE/silicone/PTFE liner installed into the cap. Borosilicate glass 33, clear. Clam shell package. Use 250uL inserts for limiting volume.	100/pk 1000/pk	60180-222 60180-222-10	-

12 x 32 mm, 2ml, 9mm Screw Top Wide Opening Glass Vial Kits



- 9mm thread design, 40% larger opening
- Reduces the chance of bent or broken needles
- Packaged in a sturdy, easy open, one-piece clamshell tray



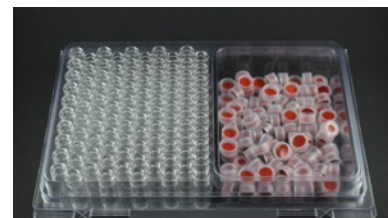
Description	Qty	Part No.	Price \$
Screw Top Vials Kit - includes: 12 x 32 mm wide mouth screw top vials 2.0 ml, Red PTFE/natural rubber liner installed into the 9mm black poly cap. Borosilicate glass 33, clear. Clam shell package. Use 250uL inserts for limiting volume.	100/pk 1000/pk	60180-223 60180-223-10	-
Screw Top Vials Kit - includes: 12 x 32 mm wide mouth screw top vials 2.0 ml, Blue PTFE/silicone/PTFE liner installed into the 9mm black poly cap. Borosilicate glass 33, clear. Clam shell package. Use 250uL inserts for limiting volume.	100/pk 1000/pk	60180-224 60180-224-10	-



Waters Vials

12 x 32 mm, 2ml Snap Top Wide Opening Glass Vial Kits

- 40% larger opening.
- Reduces the chance of bent or broken needles.
- Packaged in a sturdy, easy open, one piece clamshell tray.

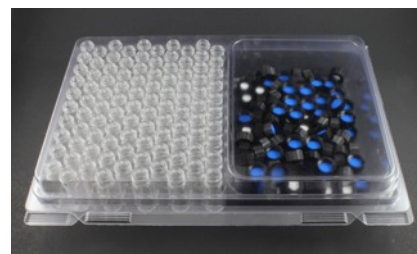


Description	Qty	Part No.	Price \$
Snap Vials Kit - includes: 12x32mm wide mouth snap vials 2.0ml, natural polypropylene snap seals with Red PTFE/silicone liner installed into cap. Borosilicate glass 33, clear. Clam shell package. Use 250uL inserts for limiting volume.	100/pk	60180-225	-
Snap Vials Kit - includes: 12x32mm wide mouth snap vials 2.0ml, natural polypropylene snap seals with Red PTFE/silicone liner installed into cap. Borosilicate glass 33, Amber. Clam shell package. Use 250uL inserts for limiting volume.	100/pk	60180-226	-



12 x 32 mm, 2ml, 9mm Screw Top Wide Opening Glass Vial Kits

- 9mm thread design, 40% larger opening
- Reduces the chance of bent or broken needles
- Packaged in a sturdy, easy open, one-piece clamshell tray



Description	Qty	Part No.	Price \$
Screw Top Vials Kit - includes: 12x32mm wide mouth screw top vials 2.0ml, Blue PTFE/silicone liner installed into the 9mm black polypropylene cap. Borosilicate glass 33, clear. Clam shell package. Use 250uL inserts for limiting volume.	100/pk	60180-227	-



12 x 32 mm, 2ml Screw Top Standard Opening Glass Vial Kits

- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Packaged in a sturdy, easy open, one-piece clamshell tray
- 8-425 Black Screw caps
- Post baked Teflon/silicone septa for increased performance



Description	Qty	Part No.	Price \$
Screw Top Vials Kit - includes: 12x32mm screw top vials 1.8ml, Blue PTFE/silicone liner installed into the 8-425 black polypropylene cap. Borosilicate glass 33, clear. Clam shell package. Use 100uL inserts for limiting volume.	100/pk	60180-228	-

Waters 48



15 x 45 mm, 4ml Screw Top Glass Vial Kits

- Lot to lot quality assurance with lot number coding
- Type 1 borosilicate glass
- Use with: Brucker LC51; Gilson, Kontron MSI 660; Perkin Elmer Autosystem; Phillips LC-XP; Shimadzu AOC-14/1400, SIL-2AS, LC-10A; Spark Marathon; TosoH TSK-6080; Waters 48-Position, 717



Description	Qty	Part No.	Price \$
Screw Top Vials Kit - includes: 15x45mm screw top vials 4.0ml, Red PTFE/silicone liner installed into the 13-425 black phenolic cap. Borosilicate glass 33, clear.	100/pk	60180-241	-
Screw Top Vials Kit - includes: 15x45mm screw top vials 4.0ml, Red PTFE/silicone liner installed into the 13-425 black phenolic cap. 300uL glass insert w/compression spring. Borosilicate glass 33, clear.	100/pk	60180-242	-
Screw Top Vials kit - Includes: 15x45mm screw top vials 4.0ml, PTFE liner installed into the 13-425 black phenolic cap. Borosilicate glass 33, clear.	100/pk	60180-243	-
Screw Top Vials kit - includes: 15x45 mm screw top vials 4.0ml, PTFE liner installed into the 13-425 black phenolic cap. 300uL glass insert w/compression spring. Borosilicate glass 33, clear.	100/pk	60180-244	-



Waters 96

8 x 40mm, 1ml Push-In Cap, Glass and Polypropylene Vial Kits

- Fits Waters 96 position tray
- Designed for best seal
- Push in cap for easy seal
- Lot to lot quality assurance with lot number coding
- Aqueous sample compatibility
- Caps have 0.01" center for easy needle penetration
- Type 1 borosilicate glass



Description	Qty	Part No.	Price \$
Shell Vial Kit - includes: 8x40 mm shell vial 1ml, one piece natural polypropylene cap. Borosilicate glass 33, clear.	250/pk	60180-256	-
Shell Vial Kit w/insert - includes: 8x40 mm shell vial 1ml, one piece natural polypropylene cap. 150uL limited volume insert w/compression spring. Borosilicate glass 33, clear.	250/pk	60180-255	-
Limited Volume Vials Kit - includes: 8x40 mm limited volume vial 700uL, one piece natural polypropylene cap. Polypropylene Vial.	250/pk	60180-253	-

Limited Volume Inserts 100uL, 250uL, & 300uL

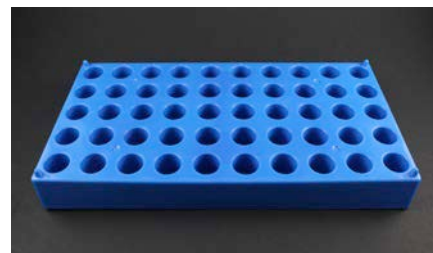
- Insert spring eliminates bent needles with shock absorbing action and eliminates dead volume
- Self-aligning spring for correct insert position
- Choice of conical inserts formed on a precision mandrel, or economical conical pulled point inserts
- Silane treated inserts available for polar compounds i.e. amines, pesticides, phenols, proteins, etc.
- Type 1 borosilicate glass



Description	Qty	Part No.	Price \$
Limited Volume Insert 100uL - includes: 100uL glass conical insert, No Spring Required. Use with standard mouth vials.	100/pk	60180-265	-
Limited Volume Insert 300uL - includes: 300uL glass conical insert, No Spring Required. Use with wide mouth vials and 2ml shell vials.	100/pk	60180-266	-
100uL Glass Conical Insert, no spring required	100/pk	A4961-010	-
	1000/pk	A4961-100	
100uL Glass Inserts with polymer spring, conical with precision point interior	100/pk	A4961-012	-
	1000/pk	A4961-202	
100uL Silanized glass Inserts , conical point interior, no spring required	100/pk	A4961-013	-
	1000/pk	A4961-203	
100uL Silanized glass Inserts with polymer spring, conical with precision point interior	100/pk	A4961-014	-
	1000/pk	A4961-204	
250uL Glass Insert, conical point interior, no spring required	100/pk	60053-01014	-
	1000/pk	60053-01014-10	
250uL Silanized Glass Insert, conical point interior, no spring required	100/pk	60053-01014-11	-
	1000/pk	60053-01014-12	
250uL Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	60053-01014-13	-
	1000/pk	60053-01014-14	
250uL Silanized Glass Insert with polymer spring, conical with precision formed mandrel interior	100/pk	60053-01014-15	-
	1000/pk	60053-01014-16	

Polypropylene Vial Rack

- Holds (50) 2.0ml, 12 x 32 mm Vials
- Autoclavable
- Stackable
- Rated at -90°C for freezer storage



Description	Qty	Part No.	Price \$
PP Vial Rack, 50 hole, Polypropylene	1/pk	A4970-010	-

FEP Tubing, Precut Rolls

- Fluorinated Ethylene Polypropylene (FEP)
- Precut into 25 ft. rolls
- Resistance to chemical attack
- Optical Transparency
- Lower heat shrink temperature & more flexibility than PTFE
- More lubricious than PFA



Description	Qty	Part No.	Price \$
FEP Industrial Tubing – 1/8" O.D. x 1/16" I.D. (25 ft. roll)	1/pkg	CH-106194	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

Headspace Vials

- ♦ Agilent (HP) Compatible
- ♦ Bruker
- ♦ Carlo Erba
- ♦ Chrompack
- ♦ CTC Analytics
- ♦ Dani
- ♦ L.E.A.P.
- ♦ Perkin-Elmer
- ♦ Tekmar
- ♦ Varian
- ♦ Shimadzu

Reference Chart

* Refer to Reference Letters on the left side of the following pages for the proper vial to fit your instrument

Brand & Model	REFERENCE LETTER F	REFERENCE LETTER G	REFERENCE LETTER H	REFERENCE LETTER I	REFERENCE LETTER J	REFERENCE LETTER K	REFERENCE LETTER L	REFERENCE LETTER M
Agilent (HP)	X		X	X				
Agilent (Modern HS Auto Samplers)							X	
Bruker Genesis	X	X	X	X				X
Bruker 8400						X		X
Carlo Erba HS500, HS700			X				X	
Chrompack CP-9020, CP-9025, CP-9060			X					
CTC Analytics	X		X					
Dani HSS 39.50, HSS 86.50	X		X					
Dani SPT 37.50	X							
L.E.A.P.								X
Perkin-Elmer HS-100, HS-101	X							
Perkin-Elmer HS-6					X			
Perkin Elmer (Modern HS Auto Samplers)								X
Shimadzu							X	
Tekmar 7000, 7050	X	X	X	X				
Tekmar (Modern HS Auto Samplers)								X
Varian Genesis	X	X	X	X				X
Varian 8400						X		X
Other Headspace Autosamplers that do not require Transports							X	X



23 x 75 mm, **Aluminum Crimp** Kit: 392611607, Magnetic Crimp Kit: 392611609



18 x 65 mm, **Aluminum Crimp** Kit: 392611611



23 x 46 mm, **Aluminum Crimp** Kit: 392611613, Magnetic Crimp Kit: 392611615



18 x 50 mm, **Aluminum Crimp** Kit: 392611617



22 x 38 mm, **Aluminum Crimp** Kit: 392611619, Magnetic Crimp Kit: 392611621



20 x 38 mm, 22 x 38 mm, 23 x 46mm, **Snap Cap** Kits: 392611975, 392611974, 392611973



23 x 46mm, 23 x 75mm, **Screw Top**, Flat Bottom, Headspace Vial Kit (Clear/Amber)



23 x 46mm, 23 x 75mm, **Screw Top**, Round Bottom, Headspace Vial Kit (Clear/Amber)

Headspace Vials

Our reference chart on the previous page shows each vial's configuration, so check your autosampler's requirements so you can order compatible items.

For magnetic caps, we recommend the bimetal magnetic crimp caps since they generally provide better seals, are easier to crimp and decap using hand tools, and are compatible with electronic rechargeable vial crimpers and decappers.

All crimpers must be adjusted for the vial and cap/septa combination you are using. The crimp height needed to form a proper seal varies with flat- and bevel-top vials, the vial lip thickness, the septum thickness, and the crimp cap material. You should check the crimper adjustment with any change in the vial, septa, or cap. Only use crimpers that have a crimp depth adjustment, and all crimpers sold are adjustable.

SPME headspace applications may require softer or thinner septa to avoid fiber damage. See our note regarding SPME-compatible caps and septa.

Note regarding SPME applications: The septa in these caps are about 1/8 in. thick. SPME fibers might be damaged if the fiber is inserted too quickly, or the crimp cap is applied too tightly such that the septa material is tightly compressed. Crimp caps with 8 mm openings are preferred for SPME applications. However, we recommend the screw cap headspace vials for SPME applications as the septa are thinner.

Crimp Top Headspace Vial Kits

Kits include vials and caps with septa inserted. The caps have 8 mm openings. Flat bottom vials are not compatible with CTC headspace autosamplers. Use our round bottom crimp top or screw top vials and order the caps you need separately.



18 x 65mm 12ml Headspace Autosampler Vial Kits

- Beveled crimp seal finish for tighter septa seal
- Steel magnetic crimp caps available for LEAP/CTC
- Lot to lot quality assurance with lot number coding
- Proven performance on all major headspace instruments
- Type 1 borosilicate glass
- PTFE/ Silicone or PTFE/ molded butyl rubber septa
- Caps have 8mm opening
- Includes: Vials & Crimp Caps w/ Septa Inserted



Description	Qty	Part#	Price \$
Clear glass 12ml headspace vial 18 x 65mm; Crimp cap, 20mm silver aluminum beveled with PTFE/silicone septa	100/pk	392611611	-
Clear glass 12ml headspace vial 18 x 65mm; Crimp cap, 20mm silver aluminum beveled with PTFE/molded butyl septa	100/pk	392611612	-
18 x 65mm 12ml headspace clear glass vials only	100/pk	392611676	-

Headspace Vials



18 x 50 mm 9ml Headspace Autosampler Glass Vial Kits

- Beveled crimp seal finish for tighter septa seal
- Steel magnetic crimp caps available for LEAP/CTC
- Lot to lot quality assurance with lot number coding
- Proven performance on all major headspace instruments
- Type 1 borosilicate glass
- PTFE/ Silicone or PTFE/ molded butyl rubber septa
- Caps have 8mm opening
- Includes: Vials & Crimp Caps w/ Septa Inserted



Description	Qty	Part#	Price \$
Clear glass 9ml headspace vial 18 x 50mm; Crimp cap, 20mm silver aluminum beveled with PTFE/silicone septa	100/pk	392611617	-
Clear glass 9ml headspace vial 18 x 50mm; Crimp cap, 20mm silver aluminum beveled with PTFE/molded butyl septa	100/pk	392611618	-
18 x 50mm 9ml headspace clear glass vials only	100/pk	392611678	-



22 x 38 mm 6ml Headspace Autosampler Glass Vial Kits

- Beveled crimp seal finish for tighter septa seal
- Steel magnetic crimp caps available for LEAP/CTC
- Lot to lot quality assurance with lot number coding
- Proven performance on all major headspace instruments
- Type 1 borosilicate glass
- PTFE/ Silicone or PTFE/ molded butyl rubber septa
- Caps have 8mm opening
- Includes: Vials & Crimp Caps w/ Septa Inserted



Description	Qty	Part#	Price \$
Clear glass 6ml headspace vial 22 x 38mm; Crimp cap, 20mm silver aluminum beveled with PTFE/silicone septa	100/pk	392611619	-
Clear glass 6ml headspace vial 22 x 38mm; Crimp cap, 20mm silver aluminum beveled with PTFE/molded butyl septa	100/pk	392611620	-
Clear glass 6ml headspace vial 22 x 38mm; Magnetic steel crimp cap, 20mm with PTFE/silicone septa	100/pk	392611621	-
Clear glass 6ml headspace vial 22 x 38mm; Magnetic steel crimp cap, 20mm with PTFE/molded butyl septa	100/pk	392611622	-
22 x 38mm 6ml headspace clear glass vials only	100/pk	392611857	-

Custom products & bulk pricing available.
Email or fax us with your specifications for more information.

Headspace Vials



23 x 46 mm 10 ml Headspace Autosampler Glass Vial Kits

- Beveled crimp seal finish for tighter septa seal
- Steel magnetic crimp caps available for LEAP/CTC
- Lot to lot quality assurance with lot number coding
- Proven performance on all major headspace instruments
- Type 1 borosilicate glass
- PTFE/ Silicone or PTFE/ molded butyl rubber septa
- Caps have 8mm opening
- Includes: Vials & Crimp Caps w/ Septa Inserted



Description	Qty	Part#	Price \$
Clear glass 10ml headspace vial 23 x 46mm; Crimp cap, 20mm silver aluminum beveled with PTFE/silicone septa	100/pk	392611613	-
Clear glass 10ml headspace vial 23 x 46mm; Crimp cap, 20mm silver aluminum beveled with PTFE/molded butyl septa	100/pk	392611614	-
Clear glass 10ml headspace vial 23x 46mm; Magnetic steel crimp cap, 20mm with PTFE/silicone septa	100/pk	392611615	-
Clear glass 10ml headspace vial 23 x 46mm; Magnetic steel crimp cap, 20mm with PTFE/molded butyl septa	100/pk	392611616	-
23 x 46mm 10ml headspace clear glass vials only	100/pk	392611677	-



23 x 75 mm 20 ml Headspace Autosampler Vial Kits

- Beveled crimp seal finish for tighter septa seal
- Steel magnetic crimp caps available for LEAP/CTC
- Lot to lot quality assurance with lot number coding
- Proven performance on all major headspace instruments
- Type 1 borosilicate glass
- PTFE/ Silicone or PTFE/ Molded butyl rubber septa
- Caps have 8mm opening
- Includes: Vials & Crimp Caps w/ Septa Inserted



Description	Qty	Part#	Price \$
Kit contains: Clear 20ml vials; 20mm beige Teflon faced silicone septa; 20mm silver aluminum beveled open top crimp cap	1000/pk	392604600	-
Clear glass 20ml headspace vial 23 x 75mm; Crimp cap, 20mm silver aluminum beveled with PTFE/silicone septa pre-inserted	100/pk	392611607	-
Clear glass 20ml headspace vial 23 x 75mm; Crimp cap, 20mm silver aluminum beveled with PTFE/molded butyl septa pre-inserted	100/pk	392611608	-
Clear glass 20ml headspace vial 23 x 75mm; Magnetic steel crimp cap, 20mm with PTFE/silicone septa pre-inserted	100/pk	392611609	-
Clear glass 20ml headspace vial 23 x 75mm; Magnetic steel crimp cap, 20mm with PTFE/molded butyl septa pre-inserted	100/pk	392611610	-
23 x 75mm 20ml headspace clear glass vials only	100/pk	392611675	-

Headspace Vials

Crimp Top Headspace Vial Kits w/ Bi-Metal Caps

- Beveled & Flat Crimp Seal Vial Finish
- Lot to lot quality assurance with lot number coding
- Proven performance on all major headspace instruments
- Type 1 borosilicate glass
- PTFE/ Silicone or PTFE/ molded butyl rubber septa
- Caps have 8mm opening
- Includes: Vials & Crimp Caps w/ Septa Inserted



Volume (mL)	Vial OD x Height (mm)	Vial Material	Vial Top	Vial Bottom	Septa Material	Qty	Bi-Metal Magnetic 20mm Crimp Cap	Price \$
6	22 mm x 38	Clear Glass	Bevel	Flat	Silicone/PTFE	100	392611619-BM	-
6	22 mm x 38	Clear Glass	Bevel	Flat	Butyl/PTFE	100	392611620-BM	-
9	18 mm x 50	Clear Glass	Flat	Flat	Silicone/PTFE	100	392611617-BM	-
9	18 mm x 50	Clear Glass	Flat	Flat	Butyl/PTFE	100	392611618-BM	-
10	23 mm x 46	Clear Glass	Bevel	Flat	Silicone/PTFE	100	392611613-BM	-
10	23 mm x 46	Clear Glass	Bevel	Flat	Butyl/PTFE	100	392611614-BM	-
12	18 mm x 65	Clear Glass	Flat	Flat	Silicone/PTFE	100	392611611-BM	-
12	18 mm x 65	Clear Glass	Flat	Flat	Butyl/PTFE	100	392611612-BM	-
20	23 mm x 75	Clear Glass	Bevel	Flat	Silicone/PTFE	100	392611607-BM	-
20	23 mm x 75	Clear Glass	Bevel	Flat	Butyl/PTFE	100	392611608-BM	-

Crimp Top Headspace Vial Kits w/ Aluminum Caps

- Beveled & Flat Crimp Seal Vial Finish
- Lot to lot quality assurance with lot number coding
- Proven performance on all major headspace instruments
- Type 1 borosilicate glass
- PTFE/ Silicone or PTFE/ molded butyl rubber septa
- Caps have 8mm opening
- Includes: Vials & Crimp Caps w/ Septa Inserted



Volume (mL)	Vial OD x Height (mm)	Vial Material	Vial Top	Vial Bottom	Septa Material	Qty	Aluminum 20mm Crimp Cap	Price \$
6	22 mm x 38	Clear Glass	Bevel	Flat	Silicone/PTFE	100	392611619	-
6	22 mm x 38	Clear Glass	Bevel	Flat	Butyl/PTFE	100	392611620	-
9	18 mm x 50	Clear Glass	Flat	Flat	Silicone/PTFE	100	392611617	-
9	18 mm x 50	Clear Glass	Flat	Flat	Butyl/PTFE	100	392611618	-
10	23 mm x 46	Clear Glass	Bevel	Flat	Silicone/PTFE	100	392611613	-
10	23 mm x 46	Clear Glass	Bevel	Flat	Butyl/PTFE	100	392611614	-
12	18 mm x 65	Clear Glass	Flat	Flat	Silicone/PTFE	100	392611611	-
12	18 mm x 65	Clear Glass	Flat	Flat	Butyl/PTFE	100	392611612	-
20	23 mm x 75	Clear Glass	Bevel	Flat	Silicone/PTFE	100	392611607	-
20	23 mm x 75	Clear Glass	Bevel	Flat	Butyl/PTFE	100	392611608	-

Headspace Vials

Crimp Top Headspace Vial Kits w/ Magnetic Steel Caps

- Beveled & Flat Crimp Seal Vial Finish
- Steel magnetic crimp caps available for LEAP/CTC
- Lot to lot quality assurance with lot number coding
- Proven performance on all major headspace instruments
- Type 1 borosilicate glass
- PTFE/ Silicone or PTFE/ molded butyl rubber septa
- Replacement 20 mm crimp caps available
- Caps have 8mm opening
- Includes: Vials & Crimp Caps w/ Septa Inserted



Volume (mL)	Vial OD x Height (mm)	Vial Material	Vial Top	Vial Bottom	Septa Material	Qty	Magnetic Steel 20mm Crimp Cap	Price \$
6	22 mm x 38	Clear Glass	Bevel	Flat	Silicone/PTFE	100	392611621	-
6	22 mm x 38	Clear Glass	Bevel	Flat	Butyl/PTFE	100	392611622	-
9	18 mm x 50	Clear Glass	Flat	Flat	Silicone/PTFE	100	392611617-MS	-
9	18 mm x 50	Clear Glass	Flat	Flat	Butyl/PTFE	100	392611618-MS	-
10	23 mm x 46	Clear Glass	Bevel	Flat	Silicone/PTFE	100	392611615	-
10	23 mm x 46	Clear Glass	Bevel	Flat	Butyl/PTFE	100	392611616	-
12	18 mm x 65	Clear Glass	Flat	Flat	Silicone/PTFE	100	392611611-MS	-
12	18 mm x 65	Clear Glass	Flat	Flat	Butyl/PTFE	100	392611612-MS	-
20	23 mm x 75	Clear Glass	Bevel	Flat	Silicone/PTFE	100	392611609	-
20	23 mm x 75	Clear Glass	Bevel	Flat	Butyl/PTFE	100	392611610	-

Crimp Top Amber Glass Headspace Vials

- Order caps with septa separately
- Round-bottom vials are compatible with CTC headspace autosamplers
- Steel magnetic crimp caps available for LEAP/CTC
- Lot to lot quality assurance with lot number coding
- Proven performance on all major headspace instruments
- Type 1 borosilicate glass



Volume (mL)	Top	Bottom	Qty	Amber Glass	Price \$
10	Bevel	Round	100/Pk	392620526	-
10	Bevel	Round	1000/Case	392620527	-
20	Bevel	Round	100 /Pk	392620528	-
20	Bevel	Round	1000/Case	392620529	-

Headspace Vials

Crimp Top Clear Glass Headspace Vials

- Order caps with septa separately
- Round-bottom vials are compatible with CTC headspace autosamplers
- Steel magnetic crimp caps available for LEAP/CTC
- Lot to lot quality assurance with lot number coding
- Proven performance on all major headspace instruments
- Type 1 borosilicate glass



Volume (mL)	Vial OD x Height	Top	Bottom	Qty	Clear Glass	Price \$
6	22 mm x 38	Bevel	Flat	100 /Pk	392611857	-
9	18 mm x 50	Flat	Flat	100/Pk	392611678	-
10	23 mm x 46	Bevel	Flat	100/Pk	392611677	-
10	23 mm x 46	Bevel	Round	100/Pk	392612033	-
10	23 mm x 46	Bevel	Round	1000/Case	392612033-10	-
10	23 mm x 46	Flat	Round	100 /Pk	392612020	-
12	18 mm x 65	Flat	Flat	100/Pk	392611676	-
20	23 mm x 75	Bevel	Flat	100 /Pk	392611675	-
20	23 mm x 75	Bevel	Round	100 /Pk	392612034	-
20	23 mm x 75	Bevel	Round	1000/Case	392612034-10	-

Custom products & bulk pricing available.
Email or fax us with your specifications for more information.

Headspace Vials

20 mm Crimp Cap w/ Silicone

- Excellent protection of sample
- Pure Silicone rubber faced w/ PTFE
- Available in Aluminum, Magnetic Bi-Metal, & Magnetic Steel



Cap Material	Opening	Qty	Silicone/PTFE	Price \$
Aluminum	5 mm	100/pk	392611858	-
Bi-metal Magnetic	8 mm	100/pk	392612017	-
Steel Magnetic	5 mm	100/pk	392611860	-

20 mm Crimp Cap w/ Teflon Butyl

- Available in Aluminum, Magnetic Bi-Metal, & Magnetic Steel
- Chlorobutyl rubber faced w/ PTFE
- Superior sample protection
- Only PTFE contacts the samples



Cap Material	Opening	Quantity	Butyl/PTFE	Price \$
Aluminum	5 mm	100/pk	392611859	-
Bi-metal Magnetic	8 mm	100/pk	392612017-B	-
Steel Magnetic	5 mm	100/pk	392611860-B	-

20 mm Crimpers & Decappers

- Easy to use
- Permits minor handle pressure
- Adjustable crimping depth
- Decapper removes crimped seals from vials



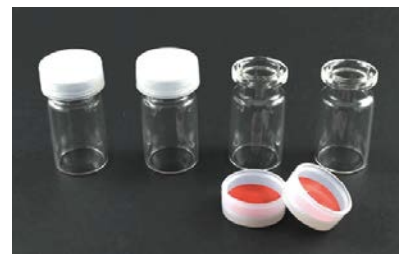
Description	Qty	Part#	Price \$
Adjustable hand crimper for 20 mm crimp top vials	1/pk	392612019	-
Adjustable hand crimper for 20 mm crimp top vials	1/pk	AL666020	-
Hand Decapper for 20 mm crimp top vials	1/pk	AL98719	-

Headspace Vials



5 & 10 mL Snap Top Headspace Vial Kits

- Used for large samples or solvents
- Polyethylene 20mm caps have 8mm opening
- Teflon/Silicone Septa
- CP-8410

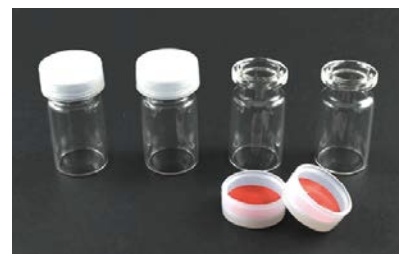


Description	OD	Length	Qty.	Part#	Price \$
5 mL Solvent Vials & CP-8410 Sample Vials w/ 20 mm Snap Tops & Septa	20 mm	38 mm	50/pk	392611975	-
	20 mm	38 mm	100/pk	392611974	-
10 mL CP-8410 Sample Vials w/ 20 mm Snap Tops & Septa	23 mm	46 mm	50/pk	392611973	-
			100/pk	392611972	-
Vial Starter Pack			1 ea	392611971	-
Includes: 2mL (10ea), 5mL (6ea), & 10mL (5ea) Vials w/ Caps & Septa					



20 x 38 mm, 5 mL Snap Top Headspace Vial Kits

- Easy to use polyethylene snap caps
- Polyethylene 20mm caps have 8mm opening
- For use in the Varian 8400 as solvent vials



Description	Qty	Part#	Price \$
Solvent vials w/ Polyethylene snap tops & Teflon/Silicone septa	4/Pk	392611970	-



22 x 46 mm, 10 mL Headspace Vials, Snap Tops, & Bi-metal Crimp Caps

- Clear Glass Vials
- Bi-metal Magnetic Crimp Cap/Septa
- Polyethylene 20mm Snap Top Caps/Septa
- Caps have 8mm opening



Description	Qty	Part#	Price \$
10-CV, 10 mL, Clear Vials only	100/Pk	392611677	-
20-ACB crimp cap and seal for 10-CV vial, Bi-metal magnetic 20mm w/ Teflon/Silicone Septa	100/Pk	392612017	-



20 mm Polyethylene Snap Tops & Septa

- Pre-inserted septa save time and reduce contamination
- Polyethylene Snap Tops have 8mm opening
- Teflon faced silicone septa



Description	Qty	Part#	Price \$
20 mm Snap Top with Red Teflon/White Silicone Septa Pre-Inserted	50/pk	392612009	-
.060" Thick, Red Teflon/White Silicone Septa for 20mm Snap Tops	50/pk	392612011	-
	100/pk	392611989	-

Headspace Vials

GC/MS Ultra Sensitive Snap Top Headspace Vial Kits & Accessories

- For GC/MS & other highly sensitive detectors
- GC/MS Ultra High Sensitive septa are specially prepared from high purity silicone and ultra clean PTFE (Teflon) to provide ultra low levels of contaminants to minimize interference with the analysis
- Has been qualified by a Major Chromatography Company using State-Of-The-Art GC/MS technology
- Ideal for Large Samples or Solvents



20 mm Ultra Headspace Vial Kits

- Type 1 Borosilicate Glass Vials
- Packaged in Ultra Clean White Non-Plastic Trays
- Septa & Caps packaged in Ultra Clean "Tested" Foil
- Polyethylene Snap Tops with 8mm hole



Description	Qty	Part#	Price \$
5ml Ultra Solvent Vial Kit, Includes: Vials & Snap Tops w/ Ultra Septa Pre-inserted, 20x 38mm	4/pk	392611980	-
	50/pk	392611981	-
	100/pk	392611982	-
10ml Ultra Vial Kit, Includes: Vials & Snap Tops w/ Ultra Septa Pre-inserted, 22 x 46mm	50/pk	392612006	-
	100/pk	392612007	-
Ultra Vial Starter Pack Contains 2ml (10 ea.), 5ml (6 ea.) and 10ml (5 ea.) Vials and Caps w/ Septa	1 ea.	392611978	-



20 mm Ultra Headspace Vials

- Type 1 Borosilicate Glass Vials
- Packaged in Ultra Clean White Non-Plastic Trays



Description	Qty	Part#	Price \$
5ml Ultra Vials, 20 x 38 mm (Vials only)	50/pk	392611980US	-
	100/pk	392611980-10US	-
10ml Ultra Vials, 22 x 46 mm (Vial only)	50/pk	392611983US	-
	100/pk	392611983-10US	-



20 mm Ultra GC/MS Snap Tops and Septa

- Pre-inserted septa save time and reduce contamination
- Polyethylene Snap Tops have 8mm opening
- Packaged in Ultra Clean "Tested" Foil



Description	Qty	Part#	Price \$
20 mm Snap Tops, 6 mm hole, Ultra GC/MS Septa	50/pk	392611984	-
Ultra GC/MS Septa for 20 mm Snap Tops	50/pk	392611986	-
	100/pk	392611988	-

Headspace Vials

Screw Top Standard Headspace Vials with Flat Bottoms

- Excellent Performance on all CTC Analytics Systems Requiring Magnet Compatible Closures (i.e. Perkin Elmer, Carlo Erba, Shimadzu, and Agilent)
- Easy-to-Seal Vials; Caps have 8mm opening
- Good and bad seals can be felt by hand and corrected before analysis
- No crimper to adjust
- The 1.3 mm Silicone/PTFE septa are recommended for SPME applications



Kits: 20mL Clear Glass Screw Top Headspace Kits (18mm)

- Includes: Vials & Crimp Caps w/ Septa Inserted
- Flat Bottom Vials



Volume	Vial OD x Height	Septa	Thickness	Septa Color	Qty	Part No.	Price \$
20 mL	23 x 75 mm	Silicone/PTFE	1.3 mm	White/light blue PTFE	100/pk	392620401	-
20 mL	23 x 75 mm	Silicone/PTFE	1.5 mm	White/darklight blue PTFE	100/pk	392620403	-
20 mL	23 x 75 mm	Butyl/PTFE	1.6 mm	Black/red PTFE	100/pk	392620405	-



Kits: 20mL Amber Glass Screw Top Headspace Kits (18mm)

- Excellent Performance on all CTC Analytics Systems Requiring Magnet Compatible Closures (i.e. Perkin Elmer, Carlo Erba, Shimadzu, and Agilent)
- Includes: Vials & Crimp Caps w/ Septa Inserted
- Flat Bottom Vials



Volume	Vial OD x Height	Septa	Thickness	Septa Color	Qty	Part No.	Price \$
20 mL	23 x 75 mm	Silicone/PTFE	1.3 mm	White/light blue PTFE	100/pk	392620401A	-
20 mL	23 x 75 mm	Silicone/PTFE	1.5 mm	White/darklight blue PTFE	100/pk	392620403A	-
20 mL	23 x 75 mm	Butyl/PTFE	1.6 mm	Black/red PTFE	100/pk	392620405A	-



Kits: 10mL Clear Glass Screw Top Headspace Kits (18mm)

- Excellent Performance on all CTC Analytics Systems Requiring Magnet Compatible Closures (i.e. Perkin Elmer, Carlo Erba, Shimadzu, and Agilent)
- Includes: Vials & Crimp Caps w/ Septa Inserted
- Flat Bottom Vials



Volume	Vial OD x Height	Septa	Thickness	Septa Color	Qty	Part No.	Price \$
10 mL	23 x 46 mm	Silicone/PTFE	1.3 mm	White/light blue PTFE	100/pk	392620401-10	-
10 mL	23 x 46 mm	Silicone/PTFE	1.5 mm	White/darklight blue PTFE	100/pk	392620403-10	-
10 mL	23 x 46 mm	Butyl/PTFE	1.6 mm	Black/red PTFE	100/pk	392620405-10	-

Headspace Vials



Kits: 10mL Amber Glass Screw Top Headspace Kits (18mm)

- Excellent Performance on all CTC Analytics Systems Requiring Magnet Compatible Closures (i.e. Perkin Elmer, Carlo Erba, Shimadzu, and Agilent)
- Includes: Vials & Crimp Caps w/ Septa Inserted
- Flat Bottom Vials



Volume	Vial OD x Height	Septa	Thickness	Septa Color	Qty	Part No.	Price \$
10 mL	23 x 46 mm	Silicone/PTFE	1.3 mm	White/light blue PTFE	100/pk	392620401-10A	-
10 mL	23 x 46 mm	Silicone/PTFE	1.5 mm	White/darklight blue PTFE	100/pk	392620403-10A	-
10 mL	23 x 46 mm	Butyl/PTFE	1.6 mm	Black/red PTFE	100/pk	392620405-10A	-



Screw Top Headspace Amber/Clear Vials (18mm)

- Vials Only (Flat Bottom)
- Excellent Performance on all CTC Analytics Systems Requiring Magnet Compatible Closures (i.e. Varian, L.E.A.P., Tekmar, and Perkin Elmer)
- Easy to seal vials (no crimper needed to adjust)
- Borosilicate glass



Volume	Vial OD x Height	Vial Material	Qty	Part No.	Price \$
10 mL	23 x 46 mm	Amber Glass	100/pk	392620104	-
10 mL	23 x 46 mm	Clear Glass	100/pk	392620102	-
20 mL	23 x 75 mm	Amber Glass	100/pk	392620204	-
20 mL	23 x 75 mm	Clear Glass	100/pk	392620202	-



Caps: Screw Tops with Septa (18mm)

- Caps have 8mm opening
- Caps with septa pre-inserted
- Excellent Performance on all CTC Analytics Systems Requiring Magnet Compatible Closures (i.e. Varian, L.E.A.P., Tekmar, and Perkin Elmer)
- Fits screw top headspace vials



Septa	Thickness	Septa Color	Qty	Part No.	Price \$
Viton	1.0 mm	Black	100/pk	392620308	-
Silicone/PTFE	1.3 mm	White/ light blue PTFE	100/pk	392620302	-
Silicone/PTFE	1.5 mm	White/ darklight blue PTFE	100/pk	392620304	-
Butyl/PTFE	1.6 mm	Black/red PTFE	100/pk	392620306	-

Screw Top European Headspace Vials with Rounded Bottoms

- Excellent Performance on all CTC Analytics Systems Requiring Magnet Compatible Closures (i.e. Varian, L.E.A.P., Tekmar, and Perkin Elmer)
- Screw top headspace vials are easier to seal; No crimper to adjust
- Good and bad seals can be felt by hand, and corrected before analysis
- The 1.3 mm Silicone/PTFE septa are recommended for SPME applications
- Caps have 8mm opening



Kits: 20mL Clear Glass Screw Top Headspace Kits (18mm)

- Includes: Vials & Crimp Caps w/ Septa Inserted
- Rounded Bottom Vials



Volume	Vial OD x Height	Septa	Thickness	Septa Color	Qty	Part No.	Price \$
20 mL	23 x 75 mm	Silicone/PTFE	1.3 mm	White/light blue PTFE	100/pk	392620401E	-
20 mL	23 x 75 mm	Silicone/PTFE	1.5 mm	White/darklight blue PTFE	100/pk	392620403E	-
20 mL	23 x 75 mm	Butyl/PTFE	1.6 mm	Black/red PTFE	100/pk	392620405E	-



Kits: 20mL Amber Glass Screw Top Headspace Kits (18mm)

- Excellent Performance on all CTC Analytics Systems Requiring Magnet Compatible Closures (i.e. Varian, L.E.A.P., Tekmar, and Perkin Elmer)
- Includes: Vials & Crimp Caps w/ Septa Inserted
- Rounded Bottom Vials



Volume	Vial OD x Height	Septa	Thickness	Septa Color	Qty	Part No.	Price \$
20 mL	23 x 75 mm	Silicone/PTFE	1.3 mm	White/light blue PTFE	100/pk	392620401AE	-
20 mL	23 x 75 mm	Silicone/PTFE	1.5 mm	White/darklight blue PTFE	100/pk	392620403AE	-
20 mL	23 x 75 mm	Butyl/PTFE	1.6 mm	Black/red PTFE	100/pk	392620405AE	-



Kits: 10mL Clear Glass Screw Top Headspace Kits (18mm)

- Excellent Performance on all CTC Analytics Systems Requiring Magnet Compatible Closures (i.e. Varian, L.E.A.P., Tekmar, and Perkin Elmer)
- Includes: Vials & Crimp Caps w/ Septa Inserted
- Rounded Bottom Vials



Volume	Vial OD x Height	Septa	Thickness	Septa Color	Qty	Part No.	Price \$
10 mL	23 x 46 mm	Silicone/PTFE	1.3 mm	White/light blue PTFE	100/pk	392620401-10CE	-
10 mL	23 x 46 mm	Silicone/PTFE	1.5 mm	White/darklight blue PTFE	100/pk	392620403-10CE	-
10 mL	23 x 46 mm	Butyl/PTFE	1.6 mm	Black/red PTFE	100/pk	392620405-10CE	-

Headspace Vials



Kits: 10mL Amber Glass Screw Top Headspace Kits (18mm)

- Excellent Performance on all CTC Analytics Systems Requiring Magnet Compatible Closures (i.e. Varian, L.E.A.P., Tekmar, and Perkin Elmer)
- Includes: Vials & Crimp Caps w/ Septa Inserted
- Rounded Bottom Vials



Volume	Vial OD x Height	Septa	Thickness	Septa Color	Qty	Part No.	Price \$
10 mL	23 x 46 mm	Silicone/PTFE	1.3 mm	White/light blue PTFE	100/pk	392620401-10AE	-
10 mL	23 x 46 mm	Silicone/PTFE	1.5 mm	White/darklight blue PTFE	100/pk	392620403-10AE	-
10 mL	23 x 46 mm	Butyl/PTFE	1.6 mm	Black/red PTFE	100/pk	392620405-10AE	-



Screw Top Headspace Amber/Clear Vials (18mm)

- Vials Only (Rounded Bottom)
- Excellent Performance on all CTC Analytics Systems Requiring Magnet Compatible Closures (i.e. Varian, L.E.A.P., Tekmar, and Perkin Elmer)
- Easy to seal vials (no crimper needed to adjust)
- Borosilicate glass



Volume	Vial OD x Height	Vial Material	Qty	Part No.	Price \$
10 mL	23 x 46 mm	Amber Glass	100/pk	392620104E	-
10 mL	23 x 46 mm	Clear Glass	100/pk	392620102E	-
20 mL	23 x 75 mm	Amber Glass	100/pk	392620204E	-
20 mL	23 x 75 mm	Clear Glass	100/pk	392620202E	-



Caps: Screw Tops with Septa (18mm)

- Caps have 8mm opening
- Caps with septa pre-inserted
- Excellent Performance on all CTC Analytics Systems Requiring Magnet Compatible Closures (i.e. Varian, L.E.A.P., Tekmar, and Perkin Elmer)
- Fits screw top headspace vials



Septa	Thickness	Septa Color	Qty	Part No.	Price \$
Viton	1.0 mm	Black	100/pk	392620308	-
Silicone/PTFE	1.3 mm	White/ light blue PTFE	100/pk	392620302	-
Silicone/PTFE	1.5 mm	White/ darklight blue PTFE	100/pk	392620304	-
Butyl/PTFE	1.6 mm	Black/red PTFE	100/pk	392620306	-

Glass Fabrication

- ♦ Chromatography
- ♦ Electronics
- ♦ Laboratory
- ♦ OEM
- ♦ Experimental
- ♦ Custom/Specialty

Custom Glass Fabrication

We offer a wide array of glass fabrication products made to your specifications. With over 70 years of glass blowing experience, we can meet all of your custom glass needs.

We offer the following glass fabrication services:

- Mold work of all types
- Gas chromatography glass coil (multiple configurations)
- Tooling of standard glass products
- Tooling of specialty items
- Glass cutting of standard rod tubing
- Plate fabrication work
- Safety glass plate work
- Drilling of holes in glass tubing & plates
- Manufacturing of scientific glassware used in research laboratories & schools
- Evacuation forming of glass products
- Ampules manufactured from clear or amber glass



X-ray Glass Products

- Wafer Stems
- Headers
- Kovar Pinches
- Tungsten Pinches
- Dumet Wire Pinches
- Nickel Pinches
- Graded Seals
- Blown Glass Frames for X-ray Tubes and Other Applications

Metal to Glass Seals

- Kovar
- Copper
- Ceramic
- Platinum
- Tungsten
- Nickel
- Dumet Wire

Types of Glass

- Borosilicate
- Soda-lime
- Lead
- Quartz
- 8245 & 8250
- All Electronic Glass

Custom products & bulk pricing available.
Email or fax us with your specifications for more information.

Specialty GC & GC/MS Products

Glass & Protection Fronts

- Available in Borosilicate Glass or Clear Polycarbonate
- Borosilicate Glass is Cleaned & Packaged Using Our Proprietary Process
- Fit Bruker Instruments
- For GC/MS Applications



Description	Qty	Part#	Price \$
Glass Front, Borosilicate Glass - 0.250" Thick x 6.65" L x 2.91" W	5/pk	394034501-5	-
Protection Front, Clear Polycarbonate - 0.125" Thick x 6.65" L x 2.91" W	5/pk	394034601-5	-

Cal-Gas Chambers

- Borosilicate Glass
- Fits Bruker, Varian, & Agilent Instruments
- Available with or without internal stem



Description	Qty	Part#	Price \$
Cal-Gas Chamber, Borosilicate Glass, 0.75" Bulb, w/ Internal Tapered Stem	5/pk	CUB02-00074-5	-
Cal-Gas Chamber, Borosilicate Glass, 1.0" Bulb, No Stem	5/pk	392027000-5	-

Glass Tekmar Spargers

- 5ml & 25ml Spargers Available
- Available with and without Frit
- Borosilicate Glass
- Fits Tekmar LSC 2000 & 3000, ALS 20 & 2016
- Glassware Only



Description	Qty	Part#	Price \$
5ml Fritted Sparger	2/pk	99764210-2	-
25ml Fritted Sparger	2/pk	99764211-2	
5ml Fritless Sparger	2/pk	99764212-2	-
25ml Fritless Sparger	2/pk	99764213-2	

Aluminum Oxide Powder

- Cleaning and Maintenance For GC/MS
- Specialty Abrasive Powder
- Mass Spectrometer Cleaning
- Recommended By Major Instrument Manufacturers
- Packaged in Glass Wide Mouth Bottle



Description	Qty	Part#	Price \$
Aluminum Oxide Powder, 100g	1/pk	393706201	-

Wire Column Racks

- ◆ For Capillary & Glass Columns
- ◆ Agilent Compatible
- ◆ Bruker
- ◆ Varian

Wire Column Racks

Our column racks fit fused silica capillary and glass coiled columns. These unique designs allow minimal metal-to-column contact that reduces the possibility of damaging the protective coating on capillary columns. Additionally, the design makes it easy to hang columns in most GC ovens- especially in Bruker, Agilent and Varian Gas Chromatographs.

Wire Column Rack

- Use with Agilent, Bruker, and Varian Gas Chromatographs
- .125" (3.175 mm) O.D. Wire
- 304 Stainless Steel Wire Construction



Description	Qty	Part No.	Price \$
Column Wire Rack Assembly, 450-GC, A-Frame	1/pk	392524701	-
	5/pk	392524701-5	

Wire Column Rack

- Use with Agilent, Bruker, and Varian Gas Chromatographs
- .125" (3.175 mm) O.D. Wire
- 304 Stainless Steel Wire Construction



Description	Qty	Part No.	Price \$
MN Rack, Special Valve	1/pk	392524702	-
	5/pk	392524702-5	

Wire Column Rack

- Use with Agilent, Bruker, and Varian Gas Chromatographs
- .125" (3.175 mm) O.D. Wire
- 304 Stainless Steel Wire Construction



Description	Qty	Part No.	Price \$
Column Rack Assembly	1/pk	393315101	-
	5/pk	393315101-5	

Wire Column Racks

Wire Column Rack

- Use with Agilent, Bruker, and Varian Gas Chromatographs
- .125" (3.175 mm) O.D. Wire
- 304 Stainless Steel Wire Construction



Description	Qty	Part No.	Price \$
Varian 3900 Column Stand	1/pk	393321901	-
	5/pk	393321901-5	

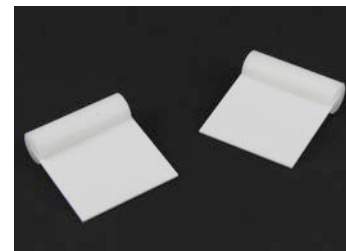
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more information.

Ceramic Scoring Wafers

Ceramic Scoring Wafers

Ceramic Scoring Wafers w/ Grip Handle

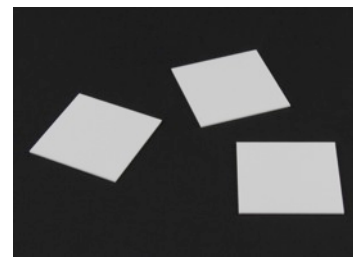
- High Quality Ceramic Cutting Tool for Cutting Fused Silica Columns
- Removable Delrin Gripping Handle for Ease of use
- Four Straight Scoring Edges
- Available with Name and Logo Imprinted on Wafer
- Excellent Trade Show Promotional Item



Description	Qty	Part#	Price \$
High Quality Ceramic Scoring Tool for Cutting Fused Silica Columns, 1" x 1" with Delrin Gripping Handle	5/pk	190015800-5	-
High Quality Ceramic Scoring Tool for Cutting Fused Silica Columns, 1" x 1" with Delrin Gripping Handle	5/pk	392612037-5	-

Ceramic Scoring Wafers

- High Quality Ceramic Cutting Tool for Cutting Fused Silica Columns
- Four Straight Scoring Edges
- Available with Name and Logo Imprinted on Wafer
- Excellent Trade Show Promotional Item



Description	Qty	Part#	Price \$
High Quality Ceramic Scoring Tool for Cutting Fused Silica Columns, 1" x 1"	5/pk	190015800NH-5	-
High Quality Ceramic Scoring Tool for Cutting Fused Silica Columns, 1" x 1"	5/pk	392612037NH-5	-

Custom products & bulk pricing available.
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more information.

GC/HPLC Custom Tubing

- ♦ Aluminum
- ♦ Copper
- ♦ FEP
- ♦ Hypodermic Stainless Steel Needle
- ♦ Inconel
- ♦ 304 Stainless Steel
- ♦ 316 Stainless Steel
- ♦ Teflon Coated Aluminum
- ♦ Teflon Coated Stainless Steel
- ♦ Straight Cut
- ♦ Bent/Formed
- ♦ Slotted
- ♦ Flared
- ♦ Threaded

Aluminum Tubing

Aluminum Straight Cut Tubing

- Available In Straight Cut Lengths
- Various Outside and Inside Diameters
- Economical Choice for Gas Transfer Lines
- Specify Tubing Length & I.D. when ordering



Description	Qty	Part No.	Price \$
Aluminum Straight Cut Tubing 1/8" O.D.	Custom	C23007	-
Aluminum Straight Cut Tubing 1/4" O.D.	Custom	C23008	-

Aluminum Bent/Formed Tubing

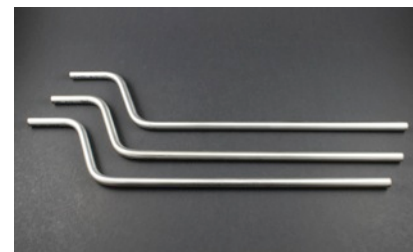
- Available In Bent Shapes and Coils
- Various Outside and Inside Diameters
- Use for Coiled or Bent Gas Transfer Lines
- Specify Bend (w/ print), Length, & O.D./I.D. when ordering



Description	Qty	Part No.	Price \$
Aluminum Bent/Formed Tubing 1/8" O.D.	Custom	C23009	-
Aluminum Bent/Formed Tubing 1/4" O.D.	Custom	C23010	-

Aluminum Tubing Teflon Lined Bent/Formed

- Available In Bent Shapes and Coils
- Chemically Deposited Interior Coated with Teflon (PTFE)
- Free From Interior Pinholes
- Coating Thickness Approximately 0.001"
- Requires Preconditioning Before Use With Chromatography Applications
- Specify Bend (w/ print) & Length when ordering



Description	Qty	Part No.	Price \$
Teflon Lined Aluminum Bent/Formed Tubing 1/8" O.D. x 0.075" I.D.	Custom	C23005	-
Teflon Lined Aluminum Bent/Formed Tubing 1/4" O.D. x 0.188" I.D.	Custom	C23006	-

Aluminum Tubing

Aluminum Tubing Teflon Lined Straight Cut

- Available In Straight Cut Lengths
- Chemically Deposited Interior Coated with Teflon (PTFE)
- Free From Interior Pinholes
- Coating Thickness Approximately 0.001"
- Requires Preconditioning Before Use With Chromatography Applications
- Specify Length when ordering



Description	Qty	Part No.	Price \$
Teflon Lined Aluminum Tubing 1/8" O.D. x 0.075" I.D.	Custom	C23000	-
Teflon Lined Aluminum Tubing 1/4" O.D. x 0.188" I.D.	Custom	C23001	-

Aluminum "Special Finish" Beveled Tubing

- Several Lengths Available
- Special Finished Bevel Surface
- Smooth Transition on Bevel Surface
- Various Outside and Inside Diameters
- Specify Length, Tubing Size, & O.D./I.D. with print when ordering



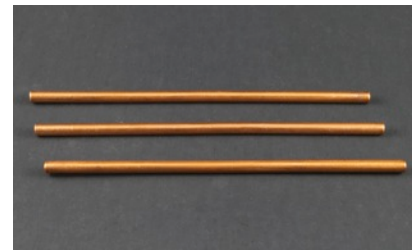
Description	Qty	Part No.	Price \$
Aluminum Beveled Special Finished Tube	Custom	C23004	-

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Email or fax us with your specifications for
more information.

Copper Tubing

Copper Straight Cut Tubing

- Available In Straight Cut Lengths
- Various Outside and Inside Diameters
- Economical Choice for Gas Transfer Lines
- Specify Length & I.D. when ordering



Description	Qty	Part No.	Price \$
Copper Straight Cut Tubing 1/8" O.D.	Custom	C23011	-
Copper Straight Cut Tubing 1/4" O.D.	Custom	C23012	-

Copper Bent/Formed Tubing

- Available In Bent Shapes and Coils
- Various Outside and Inside Diameters
- Use for Coiled or Bent Gas Transfer Lines
- Specify Bend (w/ print), Length, & O.D./I.D. when ordering



Description	Qty	Part No.	Price \$
Copper Bent/Formed Tubing 1/8" O.D.	Custom	C23013	-
Copper Bent/Formed Tubing 1/4" O.D.	Custom	C23014	-

Copper "Special Finished" Beveled Tubing

- Several Lengths Available
- Special Finished Bevel Surface
- Smooth Transition on Bevel Surface
- Various Outside and Inside Diameters
- Specify Length, Tubing Size, & O.D./I.D. with print when ordering



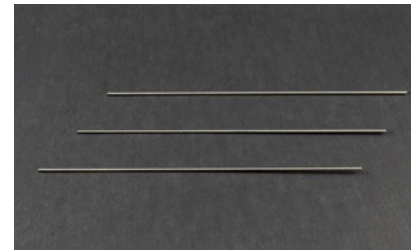
Description	Qty	Part No.	Price \$
Copper Beveled Special Finished Tube	Custom	C23015	-

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Hypodermic SS Tubing

Hypodermic Needle Stainless Steel Straight Cut Tubing

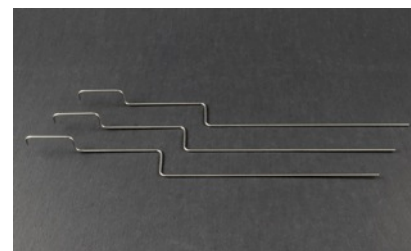
- Available In Custom Lengths
- Various Outside and Inside Diameters
- Use for Micro Transfer Lines
- Available in 304 and 316 SS
- Specify Length, Size, & Tubing Type when ordering



Description	Qty	Part No.	Price \$
Hypodermic Needle Stainless Steel Straight Cut Tubing	Custom	C23030	-

Hypodermic Needle Stainless Steel Bent/Formed Tubing

- Available In Bent Shapes and Coils
- Various Outside and Inside Diameters
- Use for Micro Transfer Lines
- Available in 304 and 316 SS
- Specify Bend (w/ print), Length, & O.D./I.D. when ordering



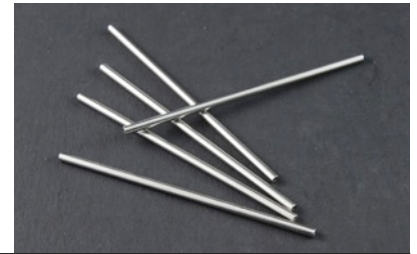
Description	Qty	Part No.	Price \$
Hypodermic Needle Stainless Steel Bent/Formed Tubing	Custom	C23031	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

304 SS Tubing

304 Stainless Steel Straight Cut Tubing

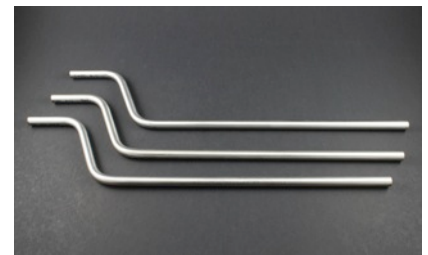
- Available In Straight Cut Lengths
- Various Outside and Inside Diameters
- Excellent Choice For Gas Transfer Lines
- Specify Length & I.D. when ordering



Description	Qty	Part No.	Price \$
304 Stainless Steel Straight Cut Tubing 1/8" O.D.	Custom	C23022	-
304 Stainless Steel Straight Cut Tubing 1/4" O.D.	Custom	C23023	-

304 Stainless Steel Bent/Formatted Tubing

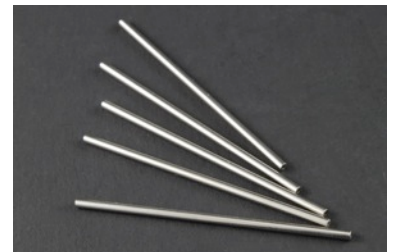
- Available In Bent Shapes and Coils
- Various Outside and Inside Diameters
- Use for Coiled or Bent Gas Transfer Lines
- Specify Bend (w/ print), Length, & O.D./I.D. when ordering



Description	Qty	Part No.	Price \$
304 Stainless Steel Bent/Formatted Tubing 1/8" O.D.	Custom	C23024	-
304 Stainless Steel Bent/Formatted Tubing 1/4" O.D.	Custom	C23025	-

304 Stainless Steel Teflon Lined Tubing Straight Cut

- Available In Straight Cut Lengths
- Chemically Deposited Interior Coated with Teflon (PTFE)
- Free From Interior Pinholes
- Coating Thickness Approximately 0.001"
- Requires Preconditioning Before Use With Chromatography Applications
- Sturdy Stainless Steel Tube
- Specify Length when ordering

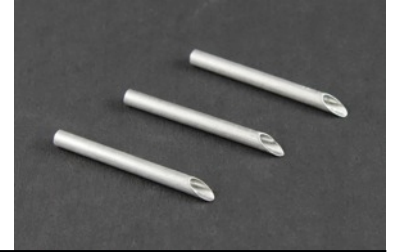


Description	Qty	Part No.	Price \$
304 Stainless Steel Teflon Lined Straight Cut Tubing 1/8" O.D. x 0.083" I.D.	Custom	C23016	-
304 Stainless Steel Teflon Lined Straight Cut Tubing 1/4" O.D. x 0.208" I.D.	Custom	C23017	-

304 SS Tubing

304 Stainless Steel "Special Finish" Beveled Tubing

- Several Lengths Available
- Special Finished Bevel Surface
- Smooth Transition on Bevel Surface
- Various Outside and Inside Diameters
- Specify Length, Tubing Size, & O.D./I.D. with print when ordering



Description	Qty	Part No.	Price \$
304 Stainless Steel Beveled Special Finished Tube	Custom	C23020	-

304 Stainless Steel "Threaded" Straight Cut Tubing

- Available In Custom Lengths
- Various Outside and Inside Diameters
- Use for Threaded Transfer Lines
- Specify Length, O.D./I.D., and Thread Size when ordering



Description	Qty	Part No.	Price \$
304 Stainless Steel "Threaded" Straight Cut Tubing	Custom	C23040	-

304 Stainless Steel "Threaded" Bent/Formatted Tubing

- Available In Bent Shapes and Coils
- Available In Custom Lengths
- Various Outside and Inside Diameters
- Use for Threaded Transfer Lines
- Specify Bend (w/ print), Length, Thread Size, & O.D./I.D. when ordering



Description	Qty	Part No.	Price \$
304 Stainless Steel "Threaded" Bent/Formatted Tubing	Custom	C23041	-

304 Stainless Steel "Flared" Straight Cut Tubing

- Available In Custom Lengths
- Various Outside and Inside Diameters
- Use for Threaded Transfer Lines
- Specify Length, O.D./I.D., & Flare Angle when ordering



Description	Qty	Part No.	Price \$
304 Stainless Steel "Flared" Straight Cut Tubing	Custom	C23042	-

304 SS Tubing

304 Stainless Steel "Slotted" Straight Cut Tubing

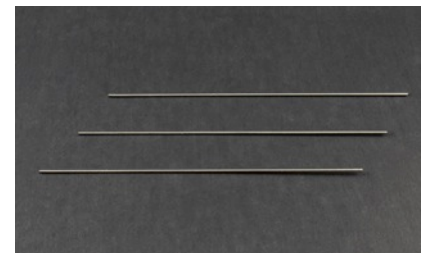
- Available In Custom Lengths
- Various Outside and Inside Diameters
- Use for Threaded Transfer Lines
- Specify Length, O.D./I.D., & Slot Depth/Width when ordering



Description	Qty	Part No.	Price \$
304 Stainless Steel "Slotted" Straight Cut Tubing	Custom	C23036	-

Hypodermic Needle 304 Stainless Steel Straight Cut Tubing

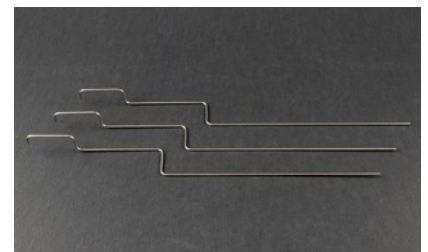
- Available In Custom Lengths
- Various Outside and Inside Diameters
- Use for Micro Transfer Lines
- Gold plating available
- Specify Length, O.D./I.D., & Tubing Type when ordering



Description	Qty	Part No.	Price \$
Hypodermic Needle 304 Stainless Steel Straight Cut Tubing	Custom	C23043	-

Hypodermic Needle 304 Stainless Steel Bent/Formed Tubing

- Available In Bent Shapes and Coils
- Various Outside and Inside Diameters
- Use for Micro Transfer Lines
- Gold plating available
- Specify Bend (w/ print), Length, & O.D./I.D. when ordering



Description	Qty	Part No.	Price \$
Hypodermic Needle 304 Stainless Steel Bent/Formed Tubing	Custom	C23044	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

316 SS Tubing

316 Stainless Steel Straight Cut Tubing

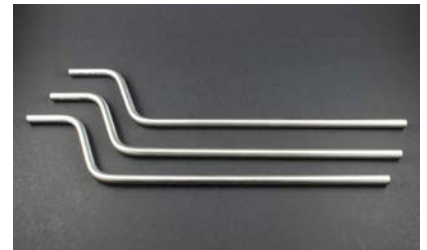
- Available In Straight Cut Lengths
- Various Outside and Inside Diameters
- Excellent Choice For Gas Transfer Lines
- Specify Length & I.D. when ordering



Description	Qty	Part No.	Price \$
316 Stainless Steel Straight Cut Tubing 1/8" O.D.	Custom	C23026	-
316 Stainless Steel Straight Cut Tubing 1/4" O.D.	Custom	C23027	-

316 Stainless Steel Bent/Formatted Tubing

- Available In Bent Shapes and Coils
- Various Outside and Inside Diameters
- Use for Coiled or Bent Gas Transfer Lines
- Specify Bend (w/ print), Length, & O.D./I.D. when ordering



Description	Qty	Part No.	Price \$
316 Stainless Steel Bent/Formatted Tubing 1/8" O.D.	Custom	C23028	-
316 Stainless Steel Bent/Formatted Tubing 1/4" O.D.	Custom	C23029	-

316 Stainless Steel "Special Finish" Beveled Tubing

- Several Lengths Available
- Special Finished Bevel Surface
- Smooth Transition on Bevel Surface
- Various Outside and Inside Diameters
- Specify Length, Tubing Size, & O.D./I.D. with print when ordering



Description	Qty	Part No.	Price \$
316 Stainless Steel Beveled Special Finished Tube	Custom	C23021	-

316 Stainless Steel "Threaded" Straight Cut Tubing

- Available In Custom Lengths
- Various Outside and Inside Diameters
- Use for Threaded Transfer Lines
- Specify Length, O.D./I.D., and Thread Size when ordering



Description	Qty	Part No.	Price \$
316 Stainless Steel "Threaded" Straight Cut Tubing	Custom	C23032	-

316 SS Tubing

316 Stainless Steel "Threaded" Bent/Formed Tubing

- Available In Bent Shapes and Coils
- Available In Custom Lengths
- Various Outside and Inside Diameters
- Use for Threaded Transfer Lines
- Specify Bend (w/ print), Length, Thread Size, & O.D./I.D. when ordering



Description	Qty	Part No.	Price \$
316 Stainless Steel "Threaded" Bent/Formed Tubing	Custom	C23033	-

316 Stainless Steel "Flared" Straight Cut Tubing

- Available In Custom Lengths
- Various Outside and Inside Diameters
- Use for Threaded Transfer Lines
- Specify Length, O.D./I.D., & Flare Angle when ordering



Description	Qty	Part No.	Price \$
316 Stainless Steel "Flared" Straight Cut Tubing	Custom	C23035	-

316 Stainless Steel "Slotted" Straight Cut Tubing

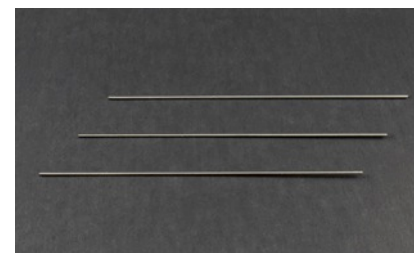
- Available In Custom Lengths
- Various Outside and Inside Diameters
- Use for Threaded Transfer Lines
- Specify Length, O.D./I.D., & Slot Depth/Width when ordering



Description	Qty	Part No.	Price \$
316 Stainless Steel "Slotted" Straight Cut Tubing	Custom	C23037	-

Hypodermic Needle 316 Stainless Steel Straight Cut Tubing

- Available In Custom Lengths
- Various Outside and Inside Diameters
- Use for Micro Transfer Lines
- Specify Length, O.D./I.D., & Tubing Type when ordering

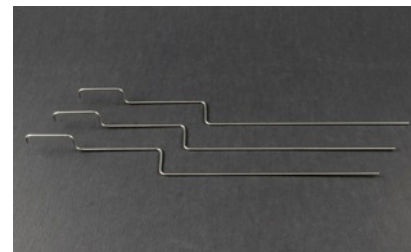


Description	Qty	Part No.	Price \$
Hypodermic Needle 316 Stainless Steel Straight Cut Tubing	Custom	C23045	-

316 SS Tubing

Hypodermic Needle 316 Stainless Steel Bent/Formed Tubing

- Available In Bent Shapes and Coils
- Various Outside and Inside Diameters
- Use for Micro Transfer Lines
- Gold plating available
- Specify Bend (w/ print), Length, & O.D./I.D. when ordering



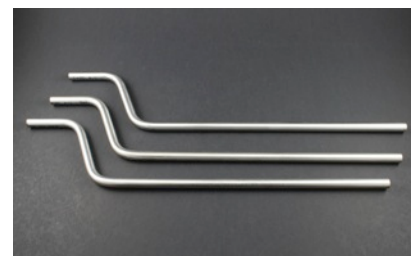
Description	Qty	Part No.	Price \$
Hypodermic Needle 316 Stainless Steel Bent/Formed Tubing	Custom	C23046	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

Teflon Lined Tubing

Teflon Lined Aluminum Bent/Formatted Tubing

- Available In Bent Shapes and Coils
- Chemically Deposited Interior Coated with Teflon (PTFE)
- Free From Interior Pinholes
- Coating Thickness Approximately 0.001"
- Requires Preconditioning Before Use With Chromatography Applications
- Specify Bend (w/ print) & Length when ordering



Description	Qty	Part No.	Price \$
Teflon Lined Aluminum Bent/Formatted Tubing 1/8" O.D. x 0.075" I.D.	Custom	C23047	-
Teflon Lined Aluminum Bent/Formatted Tubing 1/4" O.D. x 0.188" I.D.	Custom	C23048	-

Teflon Lined Aluminum Straight Cut Tubing

- Available In Straight Cut Lengths
- Chemically Deposited Interior Coated with Teflon (PTFE)
- Free From Interior Pinholes
- Coating Thickness Approximately 0.001"
- Requires Preconditioning Before Use With Chromatography Applications
- Specify Length when ordering



Description	Qty	Part No.	Price \$
Teflon Lined Aluminum Tubing 1/8" O.D. x 0.075" I.D.	Custom	C23000	-
Teflon Lined Aluminum Tubing 1/4" O.D. x 0.188" I.D.	Custom	C23001	-

Teflon Lined 304 Stainless Steel Bent/Formatted Tubing

- Available In Bent Shapes and Coils
- Chemically Deposited Interior Coated with Teflon (PTFE)
- Free From Interior Pinholes
- Coating Thickness Approximately 0.001"
- Requires Preconditioning Before Use With Chromatography Applications
- Sturdy Stainless Steel Tube
- Specify Bend (w/ print) & Length when ordering



Description	Qty	Part No.	Price \$
Teflon Lined 304 Stainless Steel Bent/Formatted Tubing 1/8" O.D. x 0.083" I.D.	Custom	C23018	-
Teflon Lined 304 Stainless Steel Bent/Formatted Tubing 1/4" O.D. x 0.208" I.D.	Custom	C23019	-

Teflon Lined Tubing

Teflon Lined 304 Stainless Steel Tubing Straight Cut

- Available In Straight Cut Lengths
- Chemically Deposited Interior Coated with Teflon (PTFE)
- Free From Interior Pinholes
- Coating Thickness Approximately 0.001"
- Requires Preconditioning Before Use With Chromatography Applications
- Sturdy Stainless Steel Tube
- Specify Length when ordering



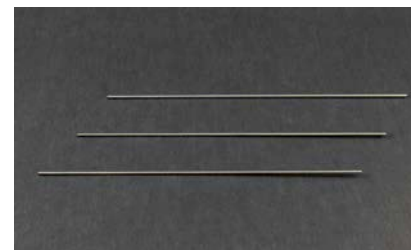
Description	Qty	Part No.	Price \$
Teflon Lined 304 Stainless Steel Straight Cut Tubing 1/8" O.D. x 0.083" I.D.	Custom	C23016	-
Teflon Lined 304 Stainless Steel Straight Cut Tubing 1/4" O.D. x 0.208" I.D.	Custom	C23017	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

Inconel Tubing

Inconel 625 Straight Cut Tubing

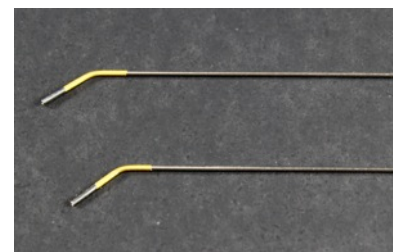
- Various Outside and Inside Diameters
- Use for Micro Transfer Lines
- Specify Length, Size, & Tubing Type when ordering
- Gold plating available



Description	Qty	Part No.	Price \$
Inconel 625 Straight Cut Tubing	Custom	C23038	-

Inconel 625 Bent/Formatted Tubing

- Available In Bent Shapes and Coils
- Various Outside and Inside Diameters
- Use for Micro Transfer Lines
- Specify Length, Size, & Tubing Type when ordering
- Gold plating available



Description	Qty	Part No.	Price \$
Inconel 625 Bent/Formatted Tubing	Custom	C23039	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

FEP Tubing

FEP Tubing, Precut Rolls

- Fluorinated Ethylene Polypropylene (FEP)
- Precut into 25 ft. rolls
- Resistance to chemical attack
- Optical Transparency
- Lower heat shrink temperature & more flexibility than PTFE
- More lubricious than PFA



Description	Qty	Part No.	Price \$
FEP Industrial Tubing – 1/8" O.D. x 1/16" I.D. (25 ft. roll)	1/pkg	CH-106194	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

Flanged Teflon Tubing Assemblies

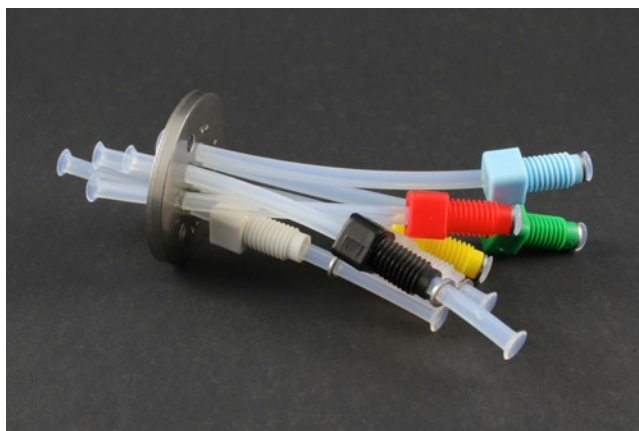
Flanged Teflon Tubing

Custom Flanged Teflon Tubing Assemblies

These custom flanged PTFE tubing assemblies come preassembled to connect to many instruments and meters. Assemblies feature 1/16" ID tubing with flared ends to provide a fluid path of continuous PTFE - process fluid purity is maintained.

Flanged Teflon tubing assemblies typically carry sample and reagent fluids to their destination. In many cases, flanged tubing assemblies must be chemically inert, and properly designed to avoid "dead volume" in the flow path. Dead volume leads to sample carry over, due to residual material in the flow path that carries over to the next test sample. Any carry over reduces the accuracy of the proceeding test samples.

Precision tubing assemblies are usually washed and rinsed after every test sample, and therefore should be replaced periodically to maintain chemical inertness and test accuracy. These assemblies may be sterilized with ethylene oxide.



We offer the following Teflon flanged tubing fabrication services:

- Chemically Inert Tubing Assemblies for the sample side of an instrument
- Preassembled to connect to many instruments and meters
- Finger-tightness for leak-free seal at 500 psi liquid
- Zero dead volume
- Tubing Assemblies for the wash & waste side of an instrument
- Flat-bottom 1/4-28 fittings are perfect for many instruments
- Available in PTFE & FEP Tubing
- Tubing O.D.'s available .0625" and .125"
- Specify Length, Tubing Type & Size and Fitting Color When Ordering
- Customer may supply us with tubing and fittings to be assembled

Custom products & bulk pricing available.
Email or fax us with your specifications for more information.

UV-VIS HPLC Detectors

- ♦ **VUV-40F** Fixed Wavelength
- ♦ **EUV** Fixed Wavelength – Low Cost Unit
- ♦ **VUV-14 UV-VIS** Fixed Wavelength
- ♦ **VUV-14D UV-VIS** Fixed Wavelength
- ♦ **VUV-24 UV-VIS** Variable Wavelength
- ♦ **OEM & Private Label Models**

VUV-40F Detector

VUV-40F Dual Beam Fixed Wavelength Absorbance

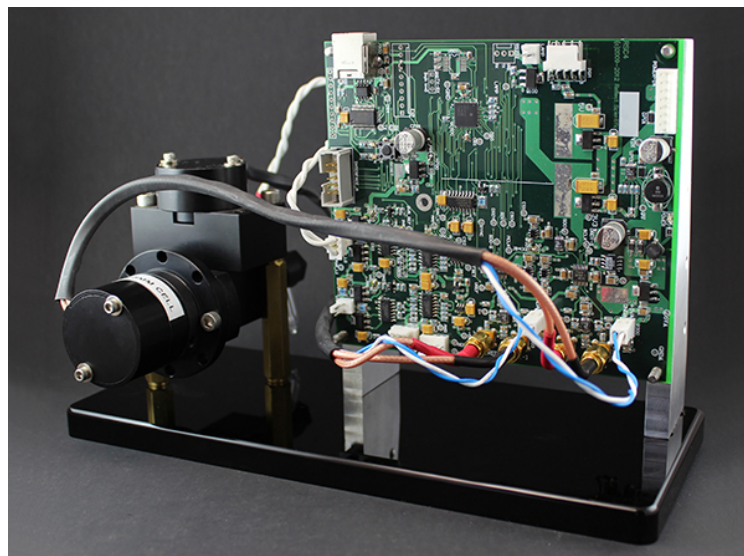
The VUV-40F is a dual beam, fixed wavelength, optical absorbance detector for liquid chromatography. The OEM module can be configured in a variety of ways from standalone operation to incorporation into a dedicated analyzer.

Variety of Light Sources

The VUV-40F can be configured with Hg, LED, Deuterium or Xenon light sources allowing a wide selection of light throughput, wavelength selection, power and sizes to fit any application.

Dual Beam

Compact patented design keeps the optical unit small but with the performance of larger instruments. This allows smaller dedicated OEM designs or smaller footprint for stand-alone instruments.



Advanced Electronics

High-resolution output can be accessed by USB or IEE488 protocols. Fully programmable parameters using a host computer are permanently stored in non-volatile memory. Easily integrated with OEM analytical systems. Stand-alone operation configuration for private label instruments is also available.

Original Equipment Manufacturer

GCFerrules.com offers complete units for private label to individual modules designed to fit your specific application. For further information please contact us.

Light sources	Low pressure mercury lamp 254 nm Deuterium 190 nm – 400 nm LED (discrete wavelengths) Xenon flash 200 nm – 800 nm
Optical design	Double beam (sample/reference)
Wavelength selection	Customer replaceable interference filter (filter not required on LED light source however it is application dependent)
Wavelength accuracy	Defined by elemental line emission characteristics of the lamp
Wavelength precision	Better than +/- 0.2 nm
Band pass	Low pressure mercury lamp <0.1 nm Deuterium/Xenon lamp typically 10.0 nm at half height (dependent on interference filter) LED 5 nm – 40 nm dependent on wavelength
Noise	< +/- 1×10^{-5} AU over 30 sec period peak to peak with 1.0 sec rise time
Drift	< +/- 1×10^{-4} AU over 30 min period peak to peak 1.0 sec rise time
Input/Output	Standard configuration USB I/O Optional 24 bit analog output or IEEE 488 Data rate can be fixed or variable from 80 samples/sec to 30,000 samples/sec.
Cells	5mm, 10mm path length STD cell; 5mm, 10mm path length High flow cell; micro cell, prep cell

EUV Fixed Wavelength Detector

The EUV model is a low cost fixed wavelength light absorbance monitor designed for chromatography. Although it does not have the sensitivity of our VUV-14 analytical unit, it is ideally suited for applications where there is a relatively high absorbance signal or where the amount of sample is not limited. The EUV can be used with a computer or configured as a standalone unit.

Fixed Wavelength

The EUV uses a replaceable low pressure Hg lamp for a wavelength emission of 254nm.

Sampling

Sampling is accomplished using a gasketless flow through chemically inert cell with a path length of 5mm.

Low cost, low maintenance

The EUV utilizes a unique optical design that eliminates expensive optical components but still provides a good detection sensitivity. Total part count has been reduced resulting in a very easy to service, rugged design.

Original Equipment Manufacturer

GCFerrules.com offers complete units for private label to individual modules designed to fit your specific application. For further information please contact us.

Specifications:

Light sources	Mercury Lamp 254 nm
Optical design	Interference filter with lamp noise correction
Wavelength selection	Hg lamp: 254 nm with +/- 20 nm band pass filter
Input/Output	USB
Sample Cell	Flow cell with 5mm path length, total dead volume 9 uL (illuminated volume)



VUV-14 Detector

VUV-14 Fixed Wavelength UV-VIS Absorbance Monitor

High Sensitivity

The VUV-14 is a fixed wavelength light absorbance monitor designed to be used with ultra low volume sampling cells under flowing solvent conditions (i.e. chromatography). The VUV-14 series of detectors has a high resolution analog output with a sensitivity range from 4.0 AU/V to 0.0005 AU/V and features a state-of-the-art noise level of less than ± 0.00001 AU.

Fixed wavelength

The VUV-14 uses a low pressure Hg lamp for a wavelength emission of 254nm.

Variety of sample cell configurations

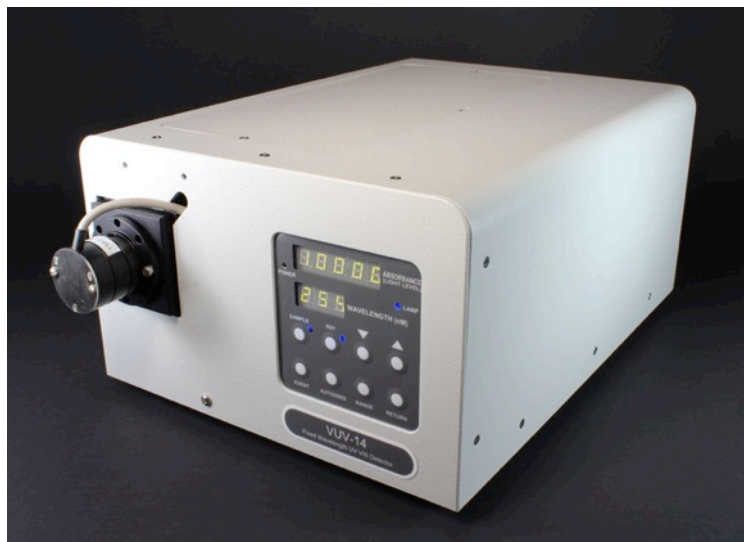
The VUV-14 has a broad line of sample cells available. These include cells designed for on column capillary monitoring, standard and high flow 5 mm and 10 mm path length HPLC cells, and preparative LC. Whatever your application the VUV-14 can serve as a reliable source for obtaining the results you want.

Reliable, Rugged, Low Maintenance Design

The VUV-14 is constructed with a high reliability lamp, true double beam sample/reference light paths and a robust universal power supply. A rugged tactile feedback keypad for instrument control is standard.

Original Equipment Manufacturer

GCFerrules.com offers complete units for private label to individual modules designed to fit your specific application. For further information please contact us.



VUV-14 Detector

Specifications:

Light Source(s):	Mercury lamp for 254 nm wavelength
Optical design:	Interference filter with fiber optic beam splitter and high sensitivity/low RI effect flow cell
Wavelength selection:	Hg lamp: 254 nm with +/- 5nm band pass filter
Wavelength accuracy:	Defined by the elemental line emission characteristic of the lamp.
Wavelength precision:	Better than +/- 0.2 nm
Wavelength band-pass:	Typical Hg elemental line emission bandwidth is less than 0.1 nm
Noise and Drift:	< +/- 1×10^{-5} AU (over 30 sec period peak to peak, 1.0 sec rise time); < +/- 1×10^{-4} AU (over 30 min. period peak to peak, 1.0 sec rise time) with STD sample cell at constant temperature
Input/Output connections:	RS-232 computer I/O; auto-injection input (event or run); auto-zero input; one analog integrator or chart recorder output, (voltage range default 1.0 v/AU); selectable analog range outputs of 4.0, 2.0, 1.0, 0.5, 0.2, 0.1, 0.05, 0.01, 0.005, 0.002, 0.001, 0.0005 AU/V with voltage range of +/- 4 V at any scale
Displays:	Absorbance (5 digit LED); wavelength (3 digit LED); analog output range (momentarily from absorbance display by pressing range switch); reference light level; sample light level
Size:	6.6" (height) X 9.4" (width) X 15" ; Approx. 5.5 kg (12 lb. shipping weight)
Sample Cells:	Standard HPLC flow cell with 10 mm path length, total dead volume of 18.0 μ L (illuminated volume). Other optional cells: on column capillary cell, micro cell (1.0 μ L), 5 mm path length HPLC cell (10 μ L volume), high volume preparative cell, high pressure/high volume preparative. Please note all cells can be changed by the user.



VUV-14 Detector

VUV-14 Detector

- High Sensitivity
- Fixed Wavelength (254nm)
- Variety of sample cell configurations
- Reliable, Rugged, Low Maintenance Design
- OEM Models available
- Custom Configurations available



Description	Qty	Part#	Price \$
Fixed wavelength ultraviolet/visible absorbance monitor, with HG Lamp, 254 nm filter with 10 mm STD cell, 18 microliter	1	9014-0001	-
Fixed wavelength ultraviolet/visible absorbance monitor, with HG Lamp, 254 nm filter with 5 mm STD cell, 10 microliter	1	9014-0010	-
Fixed wavelength ultraviolet/visible absorbance monitor, with HG Lamp 254nm filter with CAP cell for 360 OD capillary, "on-column" monitoring	1	9014-0007	-
Fixed wavelength ultraviolet/visible absorbance monitor, with HG Lamp, 254nm filter with PREP-FIX cell, low back pressure 0-3mm, set to 1.0 mm by default at factory	1	9014-0011	-
Fixed wavelength ultraviolet/visible absorbance monitor, with HG Lamp, 254 nm filter with MICRO-1000 psi cell, 1.0 microliter, 2 mm path length	1	9014-0013	-
Fixed wavelength ultraviolet/visible absorbance monitor, with HG Lamp, 254nm filter with STD-PREP cell, available with 5 mm path length, low back pressure	1	9014-0015	-
Fixed wavelength ultraviolet/visible absorbance monitor, with HG Lamp, 254nm filter with STD-PREP cell, available with 10 mm path length, low back pressure	1	9014-0009	-

Mercury Lamp

- Replacement Mercury Lamp (254nm)
- For VUV-14 detector



Description	Qty	Part#	Price \$
Mercury Lamp	1 ea.	9100-0002	-

Interference Filter

- Replacement Interference Filter (254nm)
- For VUV-14 and VUV-14D detector



Description	Qty	Part#	Price \$
Interference Filter – 254 nm	1 ea.	9150-0254	-

VUV-14D Detector

VUV-14D Fixed Wavelength UV-VIS Absorbance Monitor

High Sensitivity

The VUV-14D is a fixed wavelength light absorbance monitor designed to be used with ultra low volume sampling cells under flowing solvent conditions (i.e. chromatography). The VUV-14D series of detectors has a high resolution analog output with a sensitivity range from 4.0 AU/V to 0.0005 AU/V and features a state-of-the-art noise level of less than ± 0.00001 AU.

Flexible Configurations

The VUV-14D uses a deuterium lamp with a working wavelength range from 190 nm to 400 nm. Specific wavelengths are selected by using an interference filter. One 254nm filter is included with each detector. Other wavelengths are available upon request (prices will vary).

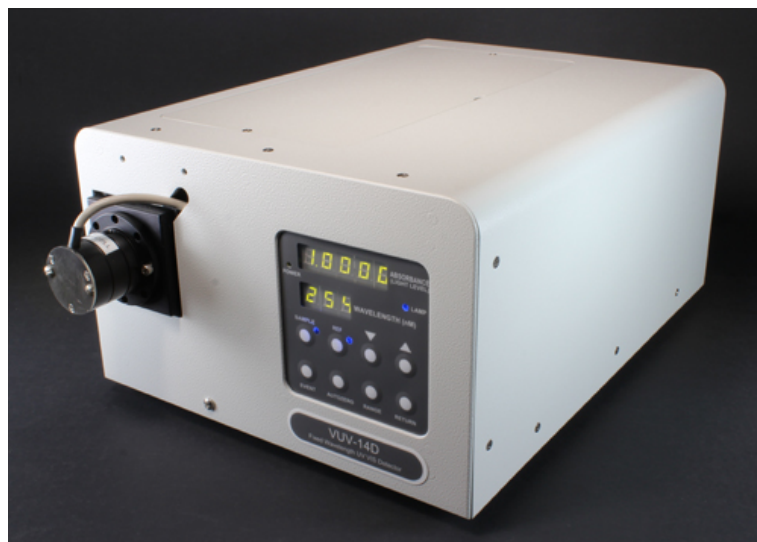
The VUV-14D has a broad line of sample cells available. These include cells designed for on column capillary monitoring, standard and high flow 5 mm and 10 mm path length HPLC cells, and preparative LC. Whatever your application the VUV-14D can serve as a reliable source for obtaining the results you want.

Reliable, Rugged, Low Maintenance Design

The VUV-14D is constructed with a high reliability lamp, true double beam sample/reference light paths and a robust universal power supply. A rugged tactile feedback keypad for instrument control is standard.

Original Equipment Manufacturer

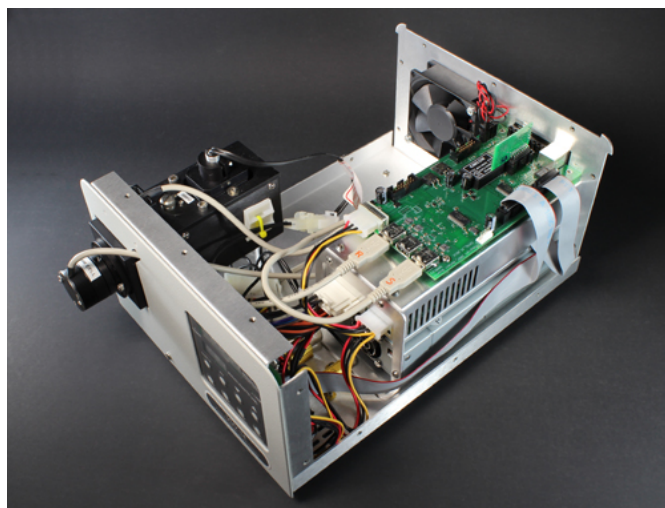
GCFerrules.com offers complete units for private label to individual modules designed to fit your specific application. For further information please



VUV-14D Detector

Specifications:

Light Source(s):	D2 lamp for 190-400 nm wavelengths
Optical design:	Interference filter with fiber optic beam splitter and high sensitivity/low RI effect flowcell.
Wavelength selection:	User changeable bandpass filters
Wavelength accuracy:	Dependent on bandpass filter specifications
Wavelength precision:	Dependent on bandpass filter specifications
Wavelength band-pass:	Dependent on bandpass filter specifications
Noise and Drift:	$< \pm 1 \times 10^{-5}$ AU (over 30 sec period peak to peak, 1.0 sec rise time); $< \pm 1 \times 10^{-4}$ AU (over 30 min. period peak to peak, 1.0 sec rise time) with STD sample cell at constant temperature
Input/Output connections:	RS-232 computer I/O; auto-injection input (event or run); auto-zero input; one analog integrator or chart recorder output, (voltage range default 1.0 v/AU); selectable analog range outputs of 4.0, 2.0, 1.0, 0.5, 0.2, 0.1, 0.05, 0.01, 0.005, 0.002, 0.001, 0.0005 AU/V with voltage range of ± 4 V at any scale
Displays:	Absorbance (5 digit LED); wavelength (3 digit LED); analog output range (momentarily from absorbance display by pressing range switch); reference light level; sample light level
Size:	6.6" (height) X 9.4" (width) X 15" ; Approx. 5.5 kg (12 lb. shipping weight)
Sample Cells:	Standard HPLC flow cell with 10 mm pathlength, total dead volume of 18.0 μ L (illuminated volume); other optional cells: on column capillary cell, micro cell (1.0 μ L), 5 mm path length HPLC cell (10 μ L volume), high volume preparative cell, high pressure/high volume preparative. Please note all cells can be changed by the user.



VUV-14D Detector

VUV-14D Fixed Wavelength UV-VIS Absorbance Monitor

- High Sensitivity
- Flexible Configurations
- Reliable, Rugged, Low Maintenance Design
- OEM Models available
- Custom Configurations available



Description	Qty	Part#	Price \$
Fixed wavelength ultraviolet/visible absorbance monitor, with D2 Lamp, 10 mm STD cell, 18 microliter	1	9014-2001	-
Fixed wavelength ultraviolet/visible absorbance monitor, with D2 Lamp, 5 mm STD cell, 10 microliter	1	9014-2010	-
Fixed wavelength ultraviolet/visible absorbance monitor, with D2 Lamp, CAP cell for 360 OD capillary, "on-column" monitoring	1	9014-2007	-
Fixed wavelength ultraviolet/visible absorbance monitor, with D2 Lamp, PREP-FIX cell, low back pressure 0-3mm, set to 1.0 mm by default at factory	1	9014-2011	-
Fixed wavelength ultraviolet/visible absorbance monitor, with D2 Lamp, MICRO-1000 cell, 1.0 microliter, 2 mm pathlength	1	9014-2013	-
Fixed wavelength ultraviolet/visible absorbance monitor, with D2 Lamp, with STD-PREP cell, available with 5 mm pathlength, low backpressure	1	9014-0015	-
Fixed wavelength ultraviolet/visible absorbance monitor, with D2 Lamp, with STD-PREP cell, available with 10 mm pathlength, low backpressure	1	9014-2009	-

D2 Deuterium Lamp

- Long life
- Low noise Deuterium Replacement Lamp
- For VUV-24 and VUV-14D detectors



Description	Qty	Part#	Price \$
D2 Deuterium Lamp	1 ea.	9100-0001	-

Interference Filter

- Replacement Interference Filter (254nm)
- For VUV-14 and VUV-14D detector
- Other wavelengths available upon request



Description	Qty	Part#	Price \$
Interference Filter – 254 nm	1 ea.	9150-0254	-

* Price varies with monitoring wavelength selected. Not all wavelengths available. Call for availability of bandpass filters.

VUV-24 Detector

VUV-24 Variable Wavelength UV-VIS Absorbance Monitor

High Sensitivity

The VUV-24 is a variable wavelength light absorbance monitor designed to be used with ultra low volume sampling cells under flowing solvent conditions (i.e. chromatography). The VUV-24 series of detectors has a high resolution analog output with a sensitivity range from 4.0 AU/V to 0.0005 AU/V and feature a state-of-the-art noise level of less than ± 0.00001 AU.

Flexible Configurations

The VUV-24 can be configured to use a deuterium lamp with a working wavelength range from 190 nm to 400 nm. Specific wavelengths are selected by using the front panel or RS232 instrument control.

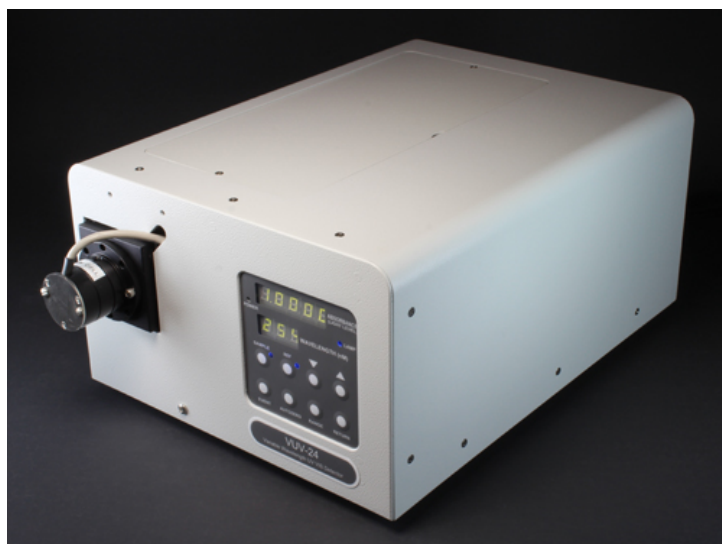
The VUV-24 has a broad line of sample cells available. These include cells designed for on column capillary monitoring, standard and high flow 5 mm and 10 mm path length HPLC cells, and preparative LC. Whatever your application, the VUV-24 can serve as a reliable source for obtaining the results you want.

Reliable, Rugged, Low Maintenance Design

The VUV-24 is constructed with a high reliability lamp, true double beam sample/reference light paths and a robust universal power supply. A rugged tactile feedback keypad for instrument control is standard.

Original Equipment Manufacturer

GCFerrules.com offers complete units for private label to individual modules designed to fit your specific application. For further information please contact us.



VUV-24 Detector

Specifications:

Light Source(s):	Deuterium lamp, typical lifetime of >2000 hours, easily changed, prealigned
Optical design:	Prism monochromator (patented) with dual beam silicon photodiodes: wavelength selection from 190 to 400 nm, one wavelength selection is output to the serial interface and the high resolution analog output
Wavelength selection:	190 nm to 400 nm in increments of 1 nm; user selected from front panel via push button input or selected from computer via RS-232 input/output
Wavelength accuracy:	Better than +/- 2 nm range
Wavelength precision:	Better than +/- 0.2 nm
Wavelength band-pass:	<8.0 nm (typical) at half-height at 250 nm
Noise and Drift:	< +/- 1 X 10 ⁻⁵ AU (over 30 sec period peak to peak, 1.0 sec rise time); < +/- 1 X 10 ⁻⁴ AU (over 30 min. period peak to peak, 1.0 sec rise time) with STD sample cell at constant temperature
Input/Output connections:	RS-232 computer I/O; auto-injection input (event or run); auto-zero input; one analog integrator or chart recorder output, (voltage range default 1.0 V/AU); selectable analog range outputs of 4.0, 2.0, 1.0, 0.5, 0.2, 0.1, 0.05, 0.01, 0.005, 0.002, 0.001, 0.0005 AU/V with voltage range of +/- 4 V at any scale
Displays:	Absorbance (5 digit LED); wavelength (3 digit LED); analog output range (momentarily from absorbance display by pressing range switch); reference light level; sample light level
Size:	6.6" (height) X 9.4" (width) X 15" ; Approx. 7.3 kg (16 lb. shipping weight)
Sample cells:	Standard HPLC flow cell with 10 mm path length, total dead volume of 18.0 µL (illuminated volume). Other optional cells: on column capillary cell, micro cell (1.0 µL), 5 mm path length HPLC cell (10 µL volume), high volume preparative cell, high pressure/high volume preparative, cuvette holder. Please note all cells can be changed by the user. Other cells are available; not all are listed.



VUV-24 Detector

VUV-24 Variable Wavelength UV-VIS Absorbance Monitor

- High Sensitivity
- Flexible Configurations
- Reliable, Rugged, Low Maintenance Design



Description	Qty	Part#	Price \$
Variable wavelength ultraviolet/visible absorbance monitor detector with D2 lamp, single wavelength monitoring, 10 mm STD cell, 18 microliter	1	9024-0001	-
Variable wavelength ultraviolet/visible absorbance monitor detector with D2 lamp, single wavelength monitoring, CAP cell, for 365 OD micron capillary with ID from 25 to 300 microns	1	9024-0007	-
Variable wavelength ultraviolet/visible absorbance monitor detector with D2 lamp, single wavelength monitoring, 10mm STD-PREP cell, low back pressure, high sensitivity	1	9024-0009	-
Variable wavelength ultraviolet/visible absorbance monitor detector with D2 lamp, single wavelength monitoring, 5 mm STD cell, 10 microliter, low RI effect	1	9024-0010	-
Variable wavelength ultraviolet/visible absorbance monitor detector with D2 lamp, single wavelength monitoring, PREP-FIX cell, 0 to 3 mm path length, set to 1.0 mm if not specified, very low back pressure	1	9024-0011	-
Variable wavelength ultraviolet/visible absorbance monitor detector with D2 lamp, single wavelength monitoring, MICRO-1000 psi cell, 2 mm path length, 1 microliter volume	1	9024-0013	-

D2 Deuterium Lamp

- Long life
- Low noise Deuterium Replacement Lamp
- For VUV-24 and VUV-14D detectors



Description	Qty	Part#	Price \$
D2 Deuterium Lamp	1 ea.	9100-0001	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

HPLC Column Test Mixtures

HPLC Column Test Mixtures

Test mixes enable you to troubleshoot chromatographic problems, optimize system efficiency, and evaluate columns under conditions where their performance is understood. We ship these test mixtures in amber ampules to prevent photo degradation.

LC Test Mix

Concentration:

in Methanol: Water (70:30)

Toluene - 100 ppm

Tartazine - 6 ppm

Anthracene - 5 ppm



Description	Qty	Part#	Price \$
LC Test Mix Ampule, 1ml	1/pk	A3469-020	-
	5/pk	A3469-010	

FL Test Mix

Concentration:

in Acetonitrile: Methanol (2:98)

Anthracene - <.001



Description	Qty	Part#	Price \$
FL Test Mix Ampule, 1ml	1/pk	A3469-030-1	-
	5/pk	A3469-030	

LOW RI Test Mix

Concentration:

in Glycerol: Water (69.2:30.8)



Description	Qty	Part#	Price \$
LOW RI Test Mix Ampule, 1ml	1/pk	A3469-060	-
	5/pk	A3469-050	

HI RI Test Mix

Concentration:

in Isopropanol: Water (83.2:16.8)



Description	Qty	Part#	Price \$
HI RI Test Mix Ampule, 1ml	1/pk	A3469-070-1	-
	5/pk	A3469-070	

Autosampler Test Mix

Concentration:

in Toluene: Methanol (0.5:99.5)



Description	Qty	Part#	Price \$
Autosampler Test Mix Ampule, 1ml	1/pk	A4991-010-1	-
	5/pk	A4991-010	

Autosampler Dilution Test Mix

Concentration:

in Toluene: Methanol (50:50)



Description	Qty	Part#	Price \$
Autosampler Dilution Test Mix Ampule, 1ml	1/pk	A5135-010-1	-
	5/pk	A5135-010	

Pump Test Mix

Concentration:

100% Methyl Paraben (Powder)



Description	Qty	Part#	Price \$
Pump Test Mix, 1ml	1/pk	A4904-010-1	-
	5/pk	A4904-010	

UV Linearity Detector Test Kit

Concentration:

Ethyl Paraben in Methanol 99.99%

Ethyl Paraben - 28 ppm

Ethyl Paraben - 14 ppm



Description	Qty	Part#	Price \$
UV Linearity Detector Test Kit Ampule, 10ml (Includes one of each concentration)	3/pk	A5113-010	-

UV Linearity Detector Test Kit

Concentration:

Ethyl Paraben in Methanol 99.99%

Ethyl Paraben - 22.4 ppm

Ethyl Paraben - 11.2 ppm



Description	Qty	Part#	Price \$
UV Linearity Detector Test Kit Ampule, 10ml (Includes one of each concentration)	3/pk	A5113-020	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

HPLC Mobile Phase Inlet Filters

- ♦ Fits all HPLC systems

Teflon Inlet Filter

- Flat Bottom Design Draws All the Solvent From the Reservoir
- Teflon Housing w/Teflon Filter
- Keep Particulates Out of Your Pump
- Draws 98% of Mobile Phase without Drawing Air into the System
- Prolong Equipment Life
- No tools or fittings needed
- High Surface Area For Long Life
- Slip On Design or Screw On Design
- 10 micrometer Porosity



Description	Qty	Part#	Price \$
Solvent Inlet Filter Teflon , w/PEEK threaded for 1/8" O.D. Teflon Tubing	1/pk 5/pk	A4258-010 A4258-010-5	-
Solvent Inlet Filter Teflon , w/PEEK barbed stem for 1/16" I.D. Teflon Tubing	1/pk 5/pk	A4258-020 A4258-020-5	-
Replacement Teflon Filter Discs to Fit A4258 Filter Housing	5/Pk	A4258-010RD	-

316 Stainless Steel Inlet Filter

- Keep Particulates Out of Your Pump
- Prolong Equipment Life
- Cylindrical Design Maximizes Filter Life
- Slip On Design or Screw On Design
- No tools or fittings needed
- 10 micrometer Porosity
- Passivated Stainless Steel



Description	Qty	Part#	Price \$
Solvent Inlet Filter SS, 3/8" O. D. w/PEEK barbed stem for 1/16" I.D. Teflon Tubing	1/pk 5/pk	A4929-010 A4929-010-5	-
Solvent Inlet Filter SS, 3/8" O. D. w/PEEK threaded for 1/8" O.D. Teflon Tubing	1/pk 5/pk	A4929-020 A4929-020-5	-
Small 1/4" O. D. Solvent Inlet Filter SS, w/threaded SS to fit 1/8" O.D. Teflon Tubing- Can be used as filter or Sparger	1/pk 5/pk	A0369-010 A0369-010-5	-

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Email or fax us with your specifications for more information.

HPLC Drain Bottles & Caps

HPLC Drain Bottles

HPLC drain bottles are used as a collection chamber for effluent waste from scientific instruments which use various solvents. These bottles are made of glass or high density polyethylene allowing for collection of most solvents. After collecting the solvents, the bottles may be easily transported to larger waste disposal containers within your lab or facility.

1000ml Graduated Lab Bottle

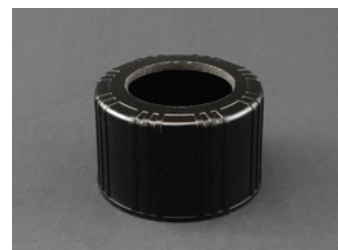
- Large white writing area
- Borosilicate glass
- 38-430 thread
- Optional - Black phenolic screw cap



Description	Qty	Part#	Price \$
1000ml Graduated Lab Bottle (includes Cap w/ Hole)	12/pk	1413-0430WCH	-
1000ml Graduated Lab Bottle (No Cap)	12/pk	1413-0430-12	-

Black Phenolic Screw Cap for 1000ml Bottle

- 1" Through hole for tubing
- Fits 1000ml graduated lab bottle
- Fits all bottles with 38-430 thread



Description	Qty	Part#	Price \$
Black Phenolic Screw Cap, 38-430 Thread with 1" Through Hole For Tubing	12/pk	DY50305500-12	-

250ml HDPE Wide Mouth Drain Bottle w/ Stainless Steel Bulkhead

- High Density Polyethylene (HDPE)
- One 316 Stainless Steel 1/16" Bulkhead Union Installed Into Cap (Union Accepts .0625" O. D. Tubing)
- 43mm Polypropylene Cap



Description	Qty	Part#	Price \$
250ml High Density Polyethylene Wide Mouth Drain Bottle w/ Cap & SS Fitting	6/pk	FM102771-6	-
Replacement 43mm Cap w/ One 316 SS 1/16" Bulkhead Union	6/pk	FM102771CAP	-

HPLC Drain Bottles

2000ml High Density Polyethylene Wide Mouth Drain Bottle

- High Density Polyethylene (HDPE)
- Two Bulkhead Barbed Nylon Fittings 1/2" I.D. Installed into Polypropylene 100mm Cap



Description	Qty	Part#	Price \$
2000ml High Density Polyethylene Wide Mouth Drain Bottle w/ Cap & Fittings	6/pk	393726501-6	-
Replacement 100mm Cap w/ Two Bulkhead Barbed Fittings (1/2" I.D.)	6/pk	393726501CAP	-

4000ml High Density Polyethylene Wide Mouth Drain Bottle

- High Density Polyethylene (HDPE)
- Two Bulkhead Barbed Nylon Fittings 1/2" I.D. Installed into Polypropylene 100mm Cap



Description	Qty	Part#	Price \$
4000ml High Density Polyethylene Wide Mouth Drain Bottle w/ Cap & Fittings	6/pk	FM103894-6	-
Replacement 100mm Cap w/ Two Bulkhead Barbed Fittings (1/2" I.D.)	6/pk	FM103894CAP	-

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more information.

Pump Repair Kits

LDC/Milton Roy

Thermo Fisher Scientific

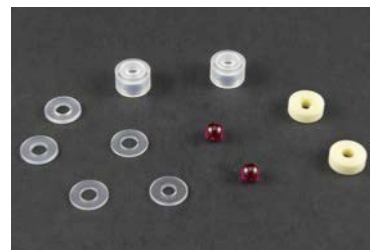
- ♦ CMI, CMII, CMIII, miniPump
- ♦ CM3000, CM3200, CM3500
- ♦ CM4000, CM4100

Pump Repair Kits

A preventive maintenance program that includes routine replacement of LDC/Milton Roy pump parts that are subject to wear will help you avoid costly downtime. The listed replacement parts are actual LDC/Thermo Scientific specified parts.

900517 Rebuild Kit (Rebuilds One Valve)

- 1ea .030" Kel-F Washer
- 2ea .020" Kel-F Washer
- 1ea .025" Kel-F Washer
- 1ea .035" Kel-F Washer
- 2ea Sapphire Seal Kit
- Instructions



Description	Qty	Part#	Price \$
900517 Rebuild Kit (Rebuilds One Valve)	1/pk	900517	-

801598 Replacement Seal Kit

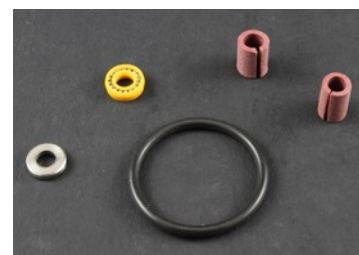
- 1ea Viton O-Ring
- 1ea Plunger Seal
- 1ea 316 Stainless Steel Back Up Ring .060"
- 2ea Plunger Bushings
- Instructions



Description	Qty	Part#	Price \$
801598 Replacement Seal Kit	1/pk	801598	-

801892001 Seal Replacement Kit, Gold

- 1ea Viton O-Ring
- 1ea Plunger Seal
- 1ea 316 Stainless Steel Back Up Ring .060"
- 2ea Plunger Bushings
- Instructions



Description	Qty	Part#	Price \$
801892001 Seal Replacement Kit, Gold	1/pk	801892001	-

Pump Repair Kits

802930001 Seal Replacement Kit, Gold

- 1ea Viton O-Ring
- 1ea 316 Stainless Steel Back Up Ring .060"
- 2ea Plunger Bushing
- 2ea Plunger Seal
- Instructions



Description	Qty	Part#	Price \$
802930001 Seal Replacement Kit, Gold	1/pk	802930001	-

802120 Liquid End Plunger Seal Removal / Insertion Tools

- 1ea Plunger Insert Tool
- 1ea Insert Tool Funnel
- 1ea Bio-Seal Removal Tool
- Instructions



Description	Qty	Part#	Price \$
802120 Liquid End Plunger Seal Removal / Insertion Tools	1/pk	802120	-

1960066976 1/8" Nut & Ferrule, for Suction Tube

- 1ea 316 Stainless Steel Nut 1/8"
- 1ea 316 Stainless Steel Ferrule 1/8"
- Instructions



Description	Qty	Part#	Price \$
1960066976 1/8" Nut & Ferrule, for Suction Tube	1/pk	1960066976	-

1960066975 1/16" Nut & Ferrule, for Discharge Tube

- 1ea 316 Stainless Steel Nut 1/16"
- 1ea 316 Stainless Steel Ferrule 1/16"
- Instructions



Description	Qty	Part#	Price \$
1960066975 1/16" Nut & Ferrule, for Discharge Tube	1/pk	1960066975	-

HPLC Preparative Fraction Collector

Preparative Fraction Collector

SP-100 Preparative Fraction Collector

Preparative scale fraction collector for liquid chromatography. Full X-Y-Z axis control with holding reservoir.

Versatile. The GCFerrules.com SP-100 fraction collector can be used for preparative to pilot production scale liquid chromatographic separations. The fully programmable X-Y-Z axis system accommodates a wide range of collection containers (40 - 1L Boston round shown). Holding reservoir allows drip-free fraction delivery. Control is accomplished through the use of a laptop or integration into an existing separation system.

We can also build a complete system that includes an SSI pump and GCFerrules.com detector. Just add your prep column. Contact us to discuss your preparative needs.



Description	Qty	Part No.	Price \$
Preparative Fraction Collector w/ X-Y-Z Axis Controller & Holding Reservoir	1	SP-100	-

Custom products & bulk pricing available.
Email or fax us with your specifications for
more information.

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