

**CATALOG**

The CAMSCO logo, consisting of three blue wavy lines above the word "CAMSCO" in a large, yellow, serif font.

**CAMSCO**

CHEMICAL AGENT MONITORING SUPPLY COMPANY





Camsco is the world's largest manufacturer of thermal desorption tubes. Unlike other instrument manufacturers who sell sorbent tubes as a by-product, Camsco's single focus is the manufacturing of tubes backed by our unmatched quality, support and service.



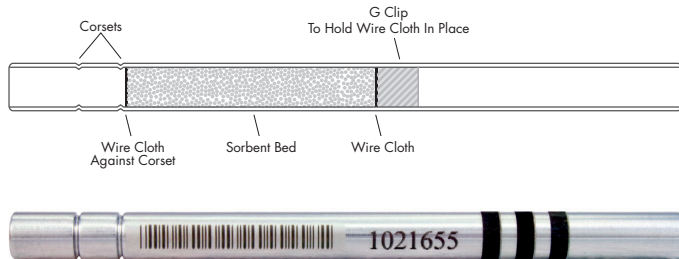
Founded in 1991, Camsco spent its first 15 years exclusively manufacturing tubes for highly-specialized military applications. Drawing on those exacting military requirements, today Camsco is growing and working with a diverse commercial client base which includes government, industry and academia. In fact, Camsco's tube production outpaces all competitors – with a field-proven base of American-made tubes well into the millions.

### **COGNI™ (Camsco's One Glance and Numeric Identification) SYSTEM**

Camsco utilizes an innovative, field- and lab-proven labeling and identification system which is designed to simplify product tracking and ensure error-free data retrieval in your LIMS. Camsco is the first to offer a permanent barcode on all metal and centerless ground glass tubes at no cost to our clients – while providing a laser/ceramic banding format for one-glance tube identification.



## Stainless Steel Tubes for PerkinElmer, Markes and Shimatzu



The picture shows an actual tube with barcode and three circumferential bands indicating Tenax TA as the sorbent.

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1/4 inch stainless steel ATD sorbent tubes come in 3.5" lengths and are standard for PerkinElmer, Markes and Shimadzu instruments. All internal metal parts are inert coated. COGNI™ System comes standard on each tube.

### Custom Features

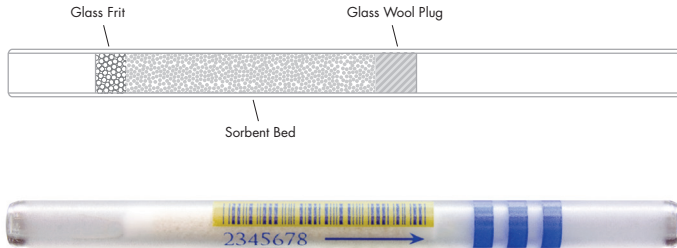
Inert coated tubes are available upon request. Cap options include compression caps (brass, steel, and PTFE) and analytical caps (brass and PTFE) for conditioned tubes. Tubes are available conditioned or unconditioned. Protective PTFE micro caps are provided when no other cap is specified.

### Steel ATD Sample Tubes

	Part Number*
Tenax™ TA 60/80 mesh	SC60520-60-B
Air Toxics	SC60501-B
Carbopack™ B 60/80 mesh	SC60541-B
Chromosorb® 106 60/80 mesh	SC60503-B
Tenax™ GR 60/80 mesh	SC60520-GR-B
Carbopack™ B/Carbosieve™ SIII	SC60528-B
Carboxen™ 569 20/45 mesh	SC60530-B
Carbosieve™ SIII 60/80 mesh	SC60510-B

\*All part numbers correlate to the following options: Conditioned;  
Brass Compression Caps (Swagelok)

## Glass Sample Tubes for PerkinElmer, Markes and Shimatzu



The picture shows an actual tube with barcode and three circumferential bands indicating Tenax TA as the sorbent.

1/4 inch glass ATD sorbent tubes come in 3.5" lengths and are standard for PerkinElmer, Markes and Shimadzu instruments. COGNI™ System comes standard on each tube.

### Custom Features

Fritless tubes available upon request. Cap options include compression caps (brass, steel, and PTFE) and brass analytical caps for conditioned tubes. Tubes are available conditioned or unconditioned. Protective PTFE micro caps are provided when no other cap is specified.

### Glass ATD Sample Tubes

	Part Number*
Tenax™ TA 60/80 mesh	GC60520-60-B
Air Toxics	GC60501-B
Carbopack™ B 60/80 mesh	GC60541-B
Chromosorb® 106 60/80 mesh	GC60503-B
Tenax™ GR 60/80 mesh	GC60520-GR-B
Carbopack™ B/Carbosieve™ SIII	GC60528-B
Carboxen™ 569 20/45 mesh	GC60530-B
Carbosieve™ SIII 60/80 mesh	GC60510-B

\*All part numbers correlate to the following options: Conditioned;  
Brass Compression Caps (Swagelok)



## 6mm Dynatherm Sample Tube



The picture shows an actual tube with barcode.

The Dynatherm sorbent tubes are 4.5" long, 6mm OD and 4mm ID and centerless ground with a fused glass frit for your Dynatherm TDU, ACEM, IACEM and MTDU instruments. COGNI™ System comes standard on each tube.

### Custom Features

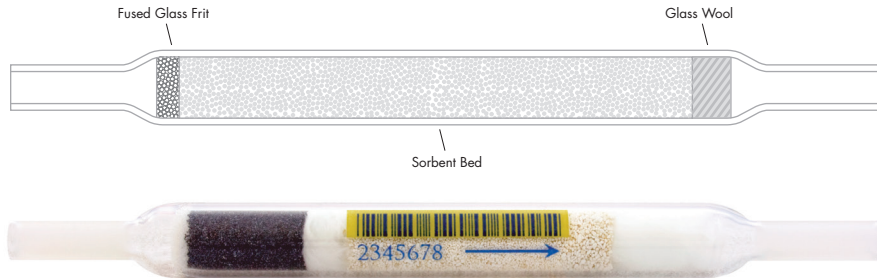
Compression caps (brass, steel, and PTFE) are available for conditioned tubes. Tubes are available conditioned or unconditioned. Protective PTFE micro caps are provided when no other cap is specified.

### Standard 6mm Dynatherm

	Part Number*
HayeSep® D 40/60 mesh	AC60408-B
Chromosorb® 106 60/80 mesh	AC60403-B
Tenax™ TA 35/60 mesh	AC60420-B
Tenax™ GR 20/35 mesh	AC60420GR-B
Tenax™ TA/HayeSep® D	AC60430-B
Carbosieve™ SIII 60/80 mesh	AC60420-08-B
Carboxen™ 569 20/45 mesh	AC60430-20-B
Tenax™ TA/Carboxen™ 1000	AC60420-1000-B

\*All part numbers correlate to the following options: Conditioned;  
Brass Compression Caps (Swagelok)

## Fast Flow Tubes for Dynatherm IACEM, ACEM & MDTU



The picture shows an actual tube with barcode.

Fast flow tubes are available for Dynatherm IACEM, ACEM and MDTU with fast flow adapters. The fused glass frit and larger 10mm body allows for a higher sample volume and lower breakthrough potential. COGNI™ System comes standard on each tube.

### Custom Features

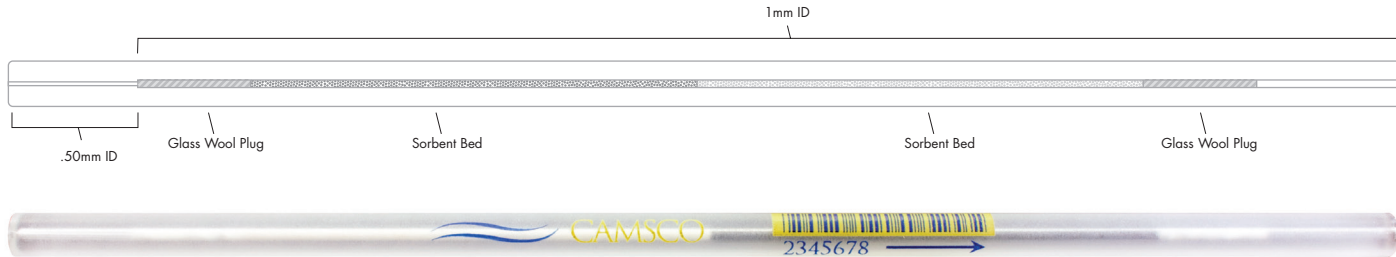
Compression caps (brass, steel, and PTFE) are available for conditioned tubes. Tubes are available conditioned or unconditioned. Protective PTFE micro caps are provided when no other cap is specified.

### Fast Flow Tubes for Dynatherm IACEM

	Part Numbers*
HayeSep® D 40/60	AC6-100408-B
Chromosorb® 106 40/60	AC6-100403-B
Tenax™ TA 35/60	AC6-100420-B
Tenax™ GR 60/80	AC6-100420GR-B
Tenax™ TA 35/60 / HayeSep® D 40/60	AC6-100420-0820-B
Chromosorb® 106/Tenax™ TA	AC6-100419-B
Chromosorb® 106 60/80 / HayeSep® D 40/60	AC6-100420-0308-B
Carbotrap™ 317	AC6-1004317-B

\*All part numbers correlate to the following options: Conditioned;  
Brass Compression Caps (Swagelok)

## Focusing Traps for Dynatherm ACEM 900



The picture shows an actual tube with barcode.

ACEM 900 series Focusing Traps are 7.25" long and have a centerless ground 6mm OD finish for an exacting fit. The ID is a capillary precision bore with variable ID. COGNI™ System comes standard on each tube.

### Custom Features

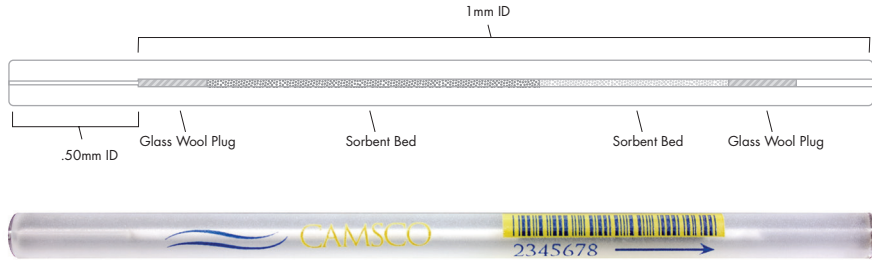
We manufacture a more robust focusing trap that better secures the sorbent bed with secondary sub-capillary spacers captured on both ends.

### 6mm Focusing Traps for ACEM (7.25" Length)

	Part Number*
HayeSep® D 40/60	FC60608-B
Chromosorb® 106 60/80	FC60603-B
Tenax™ TA 60/80	FC60620-B
Tenax™ GR 60/80	FC60620-GR-B
Tenax™ TA 60/80 / HayeSep® D 40/60	FC60608-20-B
Carbotrap™ 201	FC606201-B

\*All part numbers correlate to the following options: Conditioned;  
Brass Compression Caps (Swagelok)

## Focusing Traps for Dynatherm IACEM/ACEM 9300



The picture shows an actual tube with barcode.

IACEM/ACEM 9300 series Focusing Traps are 4.5" long and have a centerless ground 6mm OD finish for an exacting fit. The ID is a capillary precision bore with variable ID. COGNI™ System comes standard on each tube.

### Custom Features

We manufacture a more robust focusing trap that better secures the sorbent bed with secondary sub-capillary spacers captured on both ends.

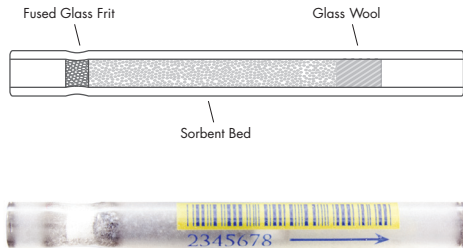
### 6mm Focusing Traps for IACEM 9300 (4.5" Length) Part Number\*

HayeSep® D 40/60	IFC60608-B
Chromosorb® 106 60/80	IFC60603-B
Tenax™ TA 60/80	IFC60620-B
Tenax™ GR 60/80	IFC60620GR-B
Tenax™ TA 60/80 / HayeSep® D 60/80	IFC60608-20-B
Carbotrap™ 201	IFC606201-B
Carbotrap™ 300	IFC606300-B
Carbotrap™ 301	IFC606301-B
Carbotrap™ 370	IFC606370-B

\*All part numbers correlate to the following options: Conditioned;  
Brass Compression Caps (Swagelok)



## Short Gerstel Glass (6mm x 2 3/8")



The picture shows an actual 6mm tube with barcode.

Short Gerstel glass tubes come in a standard length of 60mm and have a centerless ground 6mm OD. Due to its short length, single sorbent bed is the choice most of the time. COGNI™ System comes standard on each tube.

### Custom Features

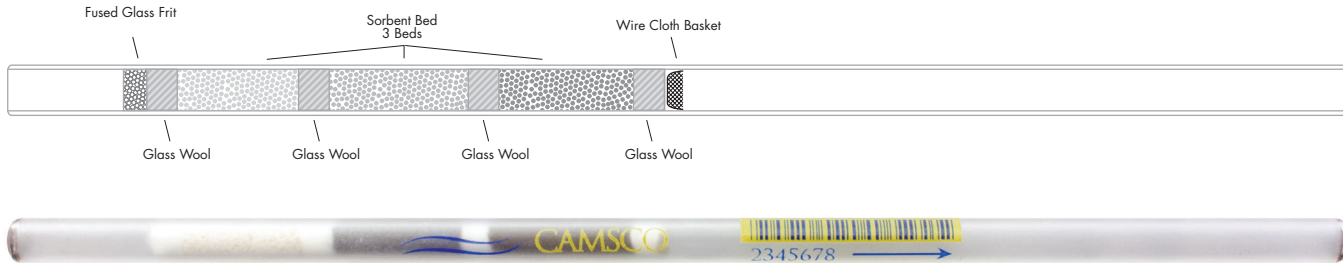
Custom options include fused glass frits, or indented glass tubes. Compression caps (brass, steel, and PTFE) are available for conditioned tubes. Protective PTFE micro cap is provided when no other cap is specified.

### New Gerstel Glass (6mm x 2 3/8")

### Part Number

Tenax™ TA 35/60 (with Frit)	G60220-35-F
Tenax™ TA 60/80 (with Frit)	G60220-F
Chromosorb® 106 60/80 (with Frit)	G60203-F
Tenax™ GR (with Frit)	G60220-GR-F
Carbopack™ B (with Frit)	G60241-F
Tenax™ TA 35/60 (with Indention)	G60220-35
Tenax™ TA 60/80 (with Indention)	G60220
Chromosorb® 106 60/80 (with Indention)	G60203
Tenax™ GR (with Indention)	G60220-GR
Carbopack™ B (with Indention)	G60241

## Glass Tubes for Gerstel Instruments



The picture shows an actual tube with barcode.

Gerstel glass TDS tubes come in a standard 6mm OD x 7" length, and are available in a variety of sorbents, bed lengths and mesh sizes. COGNI™ System comes standard on each tube.

### Custom Features

Glass tubes are available with or without glass frits. Compression caps (brass, steel, and PTFE) are available for conditioned tubes. Tubes are available conditioned or unconditioned. Protective PTFE micro caps are provided when no other cap is specified.

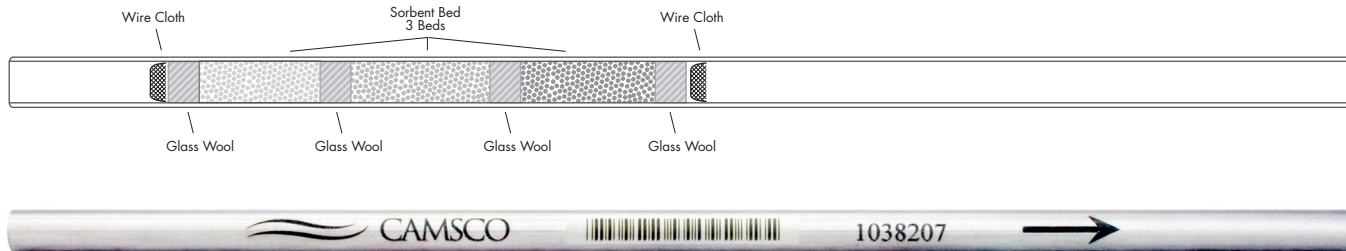
### Glass TDS Sample Tubes (6mm x 7")

### Part Number\*

Tenax™ TA	GC60720-F-B
Tenax™ GR	GC60720-GR-F-B
Chromosorb® 106	GC60703-F-B
Carbosieve™ S-III 60/80 mesh	GC60711-F-B
Carbopack™ X 60/80	GC60724-F-B
Carbotrap™ 217	GC607217-F-B
Carbopack™ X 60/80 / Tenax™ TA 60/80	GC60724-20-F-B
Carbotrap™ 300	GC607300-F-B
Carbotrap™ 349	GC607349-F-B

\*All part numbers correlate to the following options: Conditioned;  
Brass Compression Caps (Swagelok)

## Stainless Steel Tubes for Gerstel Instruments



The picture shows an actual tube with barcode.

Gerstel steel TDS tubes come in a standard 6mm OD x 7" length, and are available in a variety of sorbents, bed lengths and mesh sizes. COGNI™ System comes standard on each tube.

### Custom Features

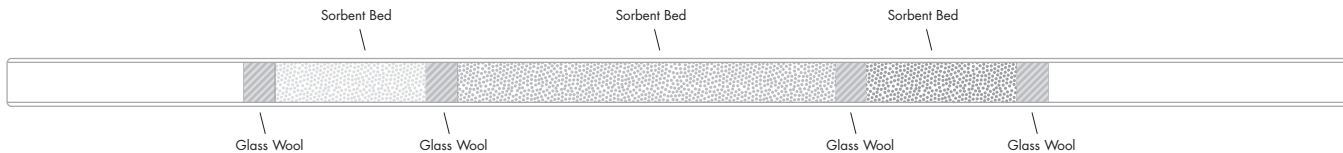
Compression caps (brass, steel, and PTFE) are available for conditioned tubes. Tubes are available conditioned or unconditioned. Protective PTFE micro caps are provided when no other cap is specified.

### Gerstel Stainelss (6mm x 7")

	Part Number*
Tenax™ TA	SC60720-F-B
Tenax™ GR	SC60720-GR-F-B
Chromosorb® 106	SC60703-F-B
Carbosieve™ S-III 60/80 mesh	SC60711-F-B
Carbopack™ X 60/80	SC60724-F-B
Carbotrap™ 217	SC607217-F-B
Carbopack™ X 60/80 / Tenax™ TA 60/80	SC60724-20-F-B
Carbotrap™ 300	SC607300-F-B
Carbotrap™ 349	SC607349-F-B

\*All part numbers correlate to the following options: Conditioned;  
Brass Compression Caps (Swagelok)

# Teledyne Tekmar Steel & Glass TDS Tubes 1/4"



The picture shows actual steel and glass tubes with barcode.

Teledyne Tekmar 1/4" steel and glass TDS tubes come in a standard length of 7" and are available in a variety of sorbents, bed depths and mesh sizes. COGNI™ System comes standard on each tube.

### Custom Features

Compression caps (brass, steel, and PTFE) are available. Protective PTFE micro caps are provided when no other cap is specified.

### Teledyne Tekmar (1/4" x 7" Steel and Glass)

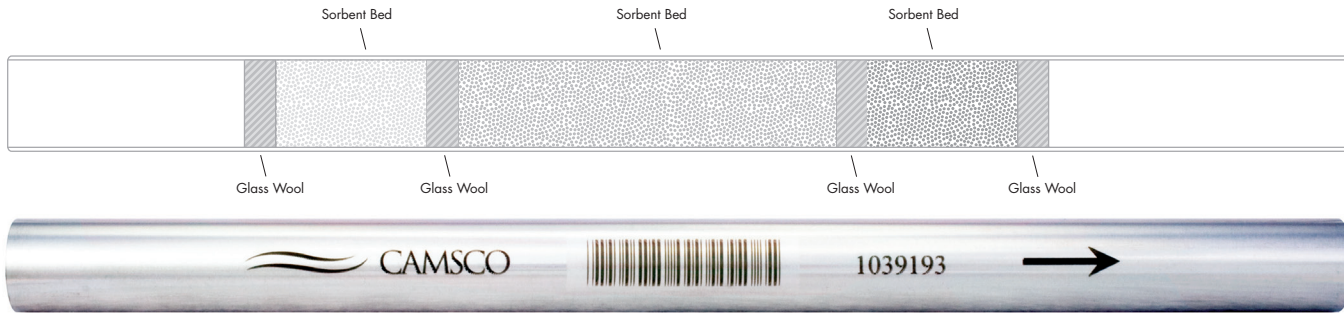
### Part Number\*

Tenax™ TA	SC/GC602020-B
Tenax™ GR	SC/GC602020-GR-B
Chromosorb® 106	SC/GC602003-B
Carbosieve™	SC/GC602011-B
Carbotrap™ B	SC/GC602041-B
Carbotrap™ C	SC/GC602042-B
Carbotrap™ 217	SC/GC6020217-B
Carbotrap™ 300	SC/GC6020300-B
Carbotrap™ 349	SC/GC6020349-B

\* All Teledyne Tekmar tubes are preconditioned;  
Part Numbers above include Brass Compression Cap (Swagelok)



## Teledyne Tekmar Steel & Glass TDS Tubes 1/2"



The picture shows an actual tube with barcode.

Teledyne Tekmar 1/2" x 7" steel and glass TDS tubes come in a standard length and are available for a variety of applications. COGNI™ System comes standard on each tube.

### Custom Features

Metal compression caps are available (Swagelok). Protective PTFE micro caps are provided when no other cap is specified.

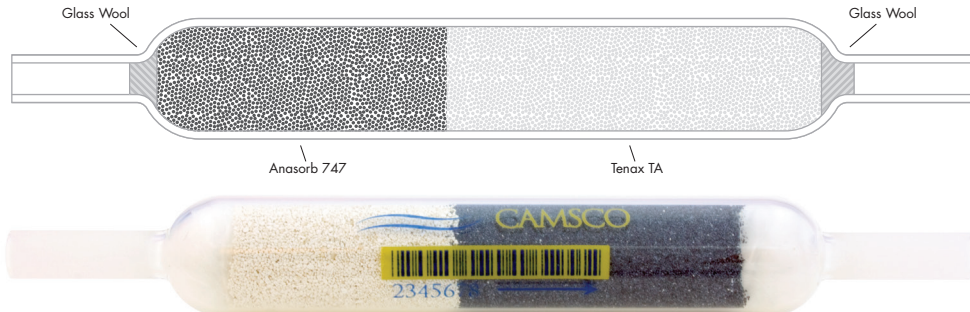
### Teledyne Tekmar (1/2" x 7" Steel and Glass)

### Part Number\*

Tenax™ TA	SC/GC1302020-B
Tenax™ GR	SC/GC1302020-GR-B
Chromosorb® 106	SC/GC1302003-B
Carbosieve™	SC/GC1302011-B
Carbotrap™ B	SC/GC1302041-B
Carbotrap™ C	SC/GC1302042-B
Carbotrap™ 217	SC/GC13020217-B
Carbotrap™ 300	SC/GC13020300-B
Carbotrap™ 349	SC/GC13020349-B

\* All Teledyne Tekmar tubes are preconditioned;  
Part Numbers above include Brass Compression Cap (Swagelok)

## VOST Sampling Tubes



The picture shows an actual tube with barcode.

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Camsco's Volatile Organic Sampling Train (VOST) tubes are used in EPA method SW-846, sampling methods 0030 and 0031 and analytical methods 5040 and 5041. Each tube is pre-conditioned, capped and has ceramic flow direction arrows. COGNI™ System comes standard on each tube.

### Custom Features

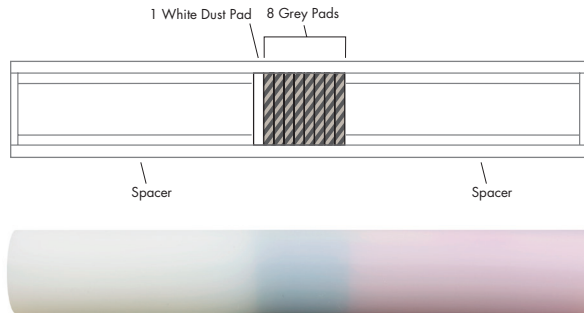
Compression caps (brass, steel, and PTFE) are available. Protective PTFE micro caps are provided when no other cap is specified.

### VOST Sampling Tubes

### Part Number

Tenax™ TA 35/60	1602220
Tenax™ TA/Anasorb	1602220-A
VOST Empty Sampling Tube	1602200

## VGT Conversion Pad Assembly for VX Agent Monitoring



The picture shows an actual 1/2" tube with a red spacer.

V-to-G conversion pads are used to convert the nerve agent VX to the more easily detectable and volatile G analog. This patented VGT packaging concept aids in easy handling and spiking of standards while wearing heavy PPE. The AgF circles contained in a PTFE tube also facilitates lot and LIMS tracking, and PCT alarm confirmations. Standard tubes are made from PTFE tubing.

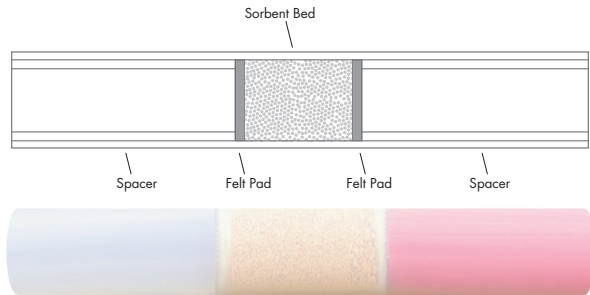
### Custom Features

Custom options include custom labeling, laser serialization, barcoding, flow direction arrows, and color spacers (blue, black, red, yellow and green) in a COGNI™ System. VGT are available with 1 to 8 conversion (AgF) pads with one dust filter.

### VGT's V-to-G Conversion Tubes

	Part Number
1/2" (13mm) VGT	VGT-13
3/8" (9.5mm) VGT	VGT-9
5/16" (8mm) VGT	VGT-8
1/4" (6mm) VGT	VGT-6
3/16" (5mm) VGT	VGT-1875

## NO<sub>x</sub> Pre-Filter for HD Chemical Agent Monitoring



The picture shows an actual 6mm tube with a red spacer.

NO<sub>x</sub>/HD pre-filters are used in conjunction with HD chemical agent historical monitoring to remove environmental NO<sub>x</sub>, preserving sample integrity for DAAMS tubes. They are available in diameters from 3/16" to 5/8" in 1/16" increments and in any length. Standard tubes are made from PTFE tubing.

### Custom Features

Custom options include custom labeling, laser serialization, barcoding, flow direction arrows, and color spacers (blue, black, red, yellow and green) in a COGNI™ System.

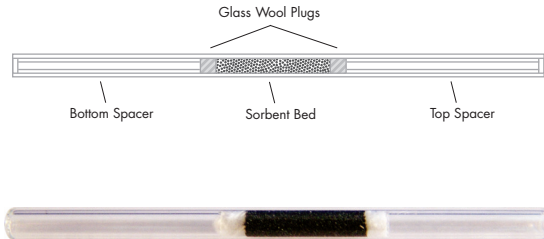
### NO<sub>x</sub>/HD Pre-filter

### Part Number

1/2" (13mm) NO <sub>x</sub>	13416
3/8" (9.5mm) NO <sub>x</sub>	71416
5/16" (8mm) NO <sub>x</sub>	81416
1/4" (6mm) NO <sub>x</sub>	61416



## 3 or 4mm Preconcentrator Tubes for ACAMS



The picture shows an actual 4mm tube.

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3 and 4mm preconcentrator tubes (PCTs) are designed to fit military and first response near real-time monitors (ACAMS) and have been developed to fit many new hand-held detectors to increase instrument sensitivity.

### Custom Features

Preconcentrator tubes come in standard lengths of 65 and 70mm. Additional custom options include stratified sorbent beds and varying bed depths.

#### Preconcentrator Tubes – 3 or 4mm

#### Part Number

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HayeSep® D 40/60 mesh

31608/S41608

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Tenax™ TA 35/60 mesh

31620/S41620

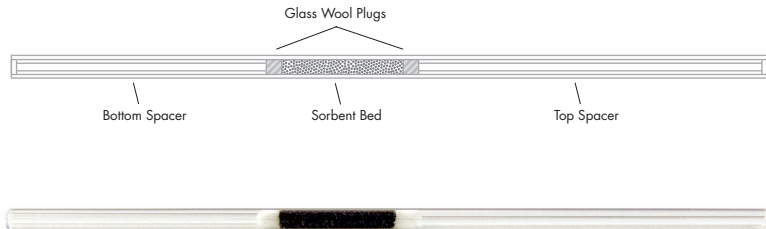
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Tenax™ GR 35/60 mesh

31620-GR/S41620-GR

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## 3mm Preconcentrator Tubes for Minicams



The picture shows an actual 3mm tube.

3mm Preconcentrator tubes for minicams are designed to fit military and first responder near real-time monitors (CMS Minicams). Camasco also makes 4mm Minicams PCTs and can custom configure any preconcentrator tube.

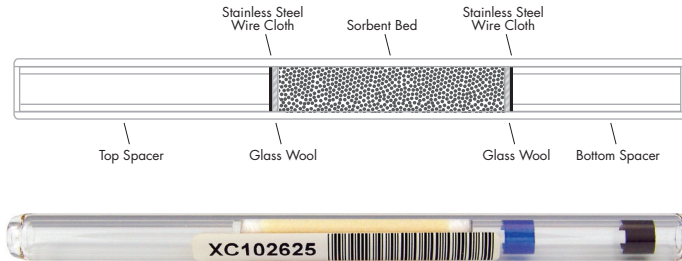
### Custom Features

Preconcentrator tubes for minicams come in a standard 100mm length and can have various sorbents, mesh sizes and bed depths.

#### Preconcentrator Tubes – 3 or 4mm

	Part Number
HayeSep® D 40/60 mesh	M31608/M41608
Tenax™ TA 35/60 mesh	M31620/M41620
Tenax™ GR 35/60 mesh	M31620-GR/M41620-GR

## 8mm DAAMS Tubes for Chemical Weapon Depot Monitoring



The picture shows an actual 8mm tube with barcode and black and blue bands on the bottom spacer.

8mm DAAMS tubes come in two lengths, 90mm and 115mm, with a variety of sorbents. The 8mm size tube is standard at many chemical weapons depots around the world. Tubes are typically glass but have been made in PTFE.

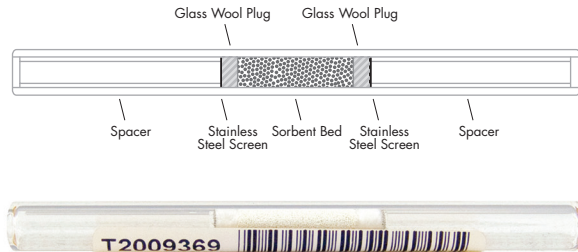
### Custom Features

Custom options include several bar coding and serialization choices for LIMS management. Other options include flow direction arrows, ceramic color tube banding (blue, black, red, yellow and green) and multi-bed packing.

### 8mm DAAMS Tubes

	Part Number
Chromosorb® 106 60/80 mesh (90mm)	80403
Tenax™ TA 60/80 mesh (90mm)	80420
Tenax™ GR 60/80 mesh (90mm)	80420-GR
Chromosorb® 106 60/80 mesh (115mm)	A80403
Tenax™ TA 60/80 mesh (115mm)	A80420
Tenax™ GR 60/80 mesh (115mm)	A80420-GR

## 6mm DAAMS Tubes for Chemical Depot Monitoring



The picture shows an actual 6mm tube with barcode and numeric identification.

6mm DAAMS tubes are 75mm long and are available with a variety of sorbents. They are primarily used at military sites like DPG, CAMDS and ECBC. Tubes are typically glass but are also available in PTFE.

### Custom Features

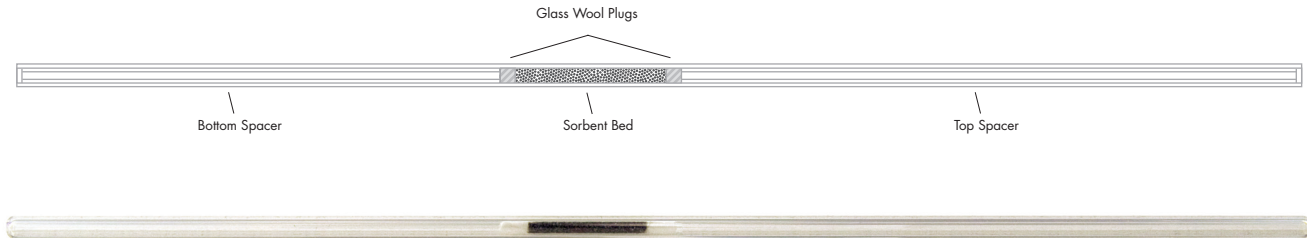
Custom options include several bar coding and serialization choices for LIMS management. Other options include flow direction arrows and ceramic color tube banding (blue, black, red, yellow and green).

### 6mm DAAMS Tubes

	Part Number
Chromosorb® 106 60/80 mesh	60403
Tenax™ TA 35/60 mesh	60420
Tenax™ GR 60/80 mesh	60420-GR



## 3mm DAAMS Transfer Tubes for Chemical Depot Monitoring



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The picture shows an actual 3mm tube.

3mm DAAMS transfer tubes come in several standard lengths from 135mm to 175mm. Transfer tubes are used in conjunction with 6 and 8 mm DAAMS tubes for manual injection of sample onto a gas chromatograph or GC-MS.

### Custom Features

Custom options include stratified bed packing for MS multi-agent analysis and varying bed depths.

### 3mm DAAMS Transfer Tubes

	Part Number
Chromosorb® 106 60/80 mesh	30403
Tenax™ TA 60/80 mesh	30420
Tenax™ GR 60/80 mesh	30420-GR
HayeSep® D 40/60 / Tenax TA™ 60/80	30408-20
Chromosorb® 106 60/80 / Tenax™ GR 60/80	30419

Analytical Cap



Compression Caps



Passive Sampling Caps



Micro Cap



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Compression caps are numerically torqued to guarantee optimal tightness.

Camsco manufactures custom end caps for long- and short-term storage, diffusive sampling and automated thermal desorption instruments.

### Custom Features

Our custom 1/4" brass, stainless and PTFE compression caps are designed for long-term storage and include a one-piece PTFE ferrule. Camsco's aluminum passive sampling caps have two o-rings for use on 1/4" stainless steel tubes. Our analytical end caps are designed for short-term storage and are used with several ATD instruments.

### Tube End Caps

	Part Number 1/4"
PTFE Analytical Cap (For Use with TurboMatrix)	PTFE60
Brass Analytical Cap (For use with TurboMatrix)	BS60
PTFE Compression Cap (CAMSCO)	PCC60
Diffusive End Cap	DC60
Brass Compression Cap (Swagelok)	BSC60
Stainless Steel Compression Cap (Swagelok)	SSC60

**More Tube Manufacturing Experience Than All Others Combined**



Sorbent tubes are not a by-product, they are our only product. Nearly 20 years of practical tube building and designing experience combined with a full-time PhD guarantees world-class technical support.

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[www.velocityscientific.com.au](http://www.velocityscientific.com.au)

**Velocity Scientific Solutions**

[info@velocityscientific.com.au](mailto:info@velocityscientific.com.au)

**Tube Design**

Sorbent*	Surface Area (m <sup>2</sup> /g)	Volatility Range	Strength	Example Analytes and Properties
Tenax™ TA or GR	35	n-C7 to n-C30 Bpt. 100° C to 450°C	very weak	Volatile and semivolatile compounds. Graphitized best for PAHs and PCBs. Hydrophobic.
Chromosorb® 106	750	n-C5 to n-C12 Bpt. 50° C to 200°C	medium	Wide range of VOCs and volatile oxygenated compounds.
Carbopack™ B	100	n-C4,5 to n-C14	medium	Wide range of Ketones, alcohols, and aldehydes (bp>76). Hydrophobic.
Carbopack™ C	12	n-C8 to n-C20	very weak	Alkyl benzenes and aliphatics ranging in volatility from n-C8 to n-C20. Hydrophobic.
Carboxen™ 1000	800	Bpt. -60° C to 80°C	very strong	Ultra volatile compounds such as C2 and C3 hydrocarbons, volatile haloforms and freons. Some hydrophilicity.
Carbopack™ Y	25	n-C12 to n-C20	weak	Designed to retain and release mid to large molecular weight analytes. Hydrophobic.
Carboxen™ 1003	1000	n-C2 to n-C5	very strong	Designed to retain and release small molecular weight analytes.
Carbosieve™ SIII	820	Bpt. -60° C to 80°C	very strong	Ultra volatile compounds such as C2 and C3 hydrocarbons, volatile haloforms and freons. Some hydrophilicity.
HayeSep® D	800	n-C1 to n-C6	medium	Designed to retain and release mid to large molecular weight analytes. Hydrophobic.
Carboxen™ 569	485	n-C2 to n-C5	medium	Ultra volatile compounds such as C3 and C4 hydrocarbons, volatile haloforms and freons. Some hydrophilicity.

\*Request a full-size "Camsco Sorbent Selection Chart" by visiting the Camsco Web site

Ask Camsco for a comprehensive Sorbent Selection Chart.

## CAMSCO SORBENT SELECTION CHART

CAL PROPERTIES			SORBENT			APPLICATIONS AND SELECTION	
Maximum Temp °C	Conditioning Temp °C	Desorption Temp °C	(equivalent or replaceable)	Mesh Sizes	Volatility Range (Carbon & BP)	Suitable Analytes	Features
400	350	325	Anasorb CMC (CMS)	Various	C3 - C4 60 - 80°C	Developed for sampling very volatile organic compounds, freons, volatile halocarbons like methyl chloride and dichloromethane. Examples also include acetone, anaesthetic gases, propene and sulfuryl fluoride (vicane)	High surface area, used for both thermal and solvent desorption. Polar compounds are higher than with charcoal when sampling. Comparable to Carbowax 1000/1003
350	N/A Solvent	N/A Solvent	Anasorb 747 (Beaded active carbon)	20/40	C2 - C5	A wide range of polar and non-polar compounds, similar to charcoals but better for polar compounds. Examples include propene oxide, dichloromethane, methanol and a variety of ketones and acrylates.	High surface area, capacity for organic vapors similar to polysorbents. Used with solvent desorption, but does not catalyze the breakdown of organics.
400	350	330	Carbowax 54	60/80 80/100	C1 - C2	Permanent gases (H <sub>2</sub> , O <sub>2</sub> , Ar, CO and CO <sub>2</sub> ) and C1 - C2 hydrocarbons (methane, ethane, ethylene, acetylene)	High capacity / breakthrough volume for small molecules. Similar to Carbowax 1000/1003
400	350	330	Carbowax 54II	60/80	C2 - C4 60 - 80°C	Permanent gases (H <sub>2</sub> , O <sub>2</sub> , Ar, CO and CO <sub>2</sub> ) and C2 - C4 hydrocarbons, chloromethane	High capacity / breakthrough volume for small molecules. More comparable to Anasorb CMC, similar to Carbowax 1000/1003
200	190	190	Carbowax G	Various	C1 - C3	Permanent gases and C2-C3 hydrocarbons	High capacity / breakthrough volume for small molecules. Similar to Carbowax 1000/1003
400	350	330	Carbowax 563 (Anasorb 340)	20/45	C3 - C5 50 - 200°C	C3 - C5 VOCs Similar to Carbowax 564	low back pressure. Highly hydrophobic - humidity proof. High breakthrough volume in VOC analysis
400	350	330	Carbowax 564 (Anasorb 347)	20/45	C2 - C5	C2 - C5 VOCs Similar to Carbowax 563, but less capacity for water	low back pressure. Highly hydrophobic - humidity proof. High breakthrough volume in VOC analysis
400	350	330	Carbowax 569	20/45	C2 - C5	Similar to Carbowax 563 and 564, but higher capacity for organic vapors and less capacity for water	low back pressure. Highly hydrophobic - humidity proof. High breakthrough volume in VOC analysis

<b>Sorbent*</b>	<b>Max Temp</b>	<b>Conditioning Temp</b>	<b>Desorb Temp</b>
Tenax™ TA or GR	350°C	325°C	Up to 300°C
Chromosorb® 106	250°C	225 to 250°C	No higher than 200°C
Carbopack™ B & C	>400°C	350 to 400°C	300 to 350°C
Carbopack™ Y	>400°C	350 to 400°C	300 to 350°C
Carboxen™ 1000	400°C	350 to 400°C	300 to 350°C
Carboxen™ 1003	400°C	350 to 400°C	300 to 350°C
Carbosieve™ SIII	400°C	350 to 400°C	300 to 350°C
HayeSep® D	300°C	190°C	180°C
Carboxen™ 569	>400°C	350 to 400°C	No higher than 360°C

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### **We are Committed to Quality**

Camsco's skilled and experienced artisans manufacture all of our products - and we are proud to say that we are AS 9100, NATO AQAP 110, ISO 9001, ISO 14001 and OHSAS 18001 certified. Does your instrument manufacturer's ISO certification cover sorbent tube manufacturing?

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+

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