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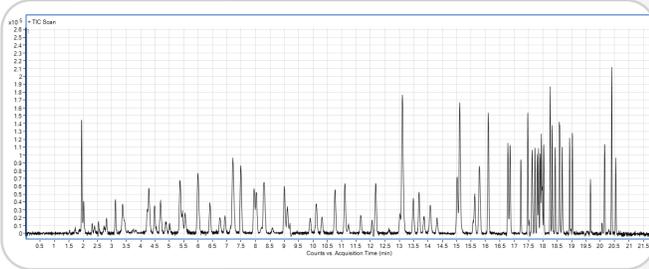
CDS 8500 Automated Purge and Trap Concentrator for GC-MS

- Purge and Trap Concentrator with the Latest 3rd Generation Autosampler for EPA 8260 Water and Soils

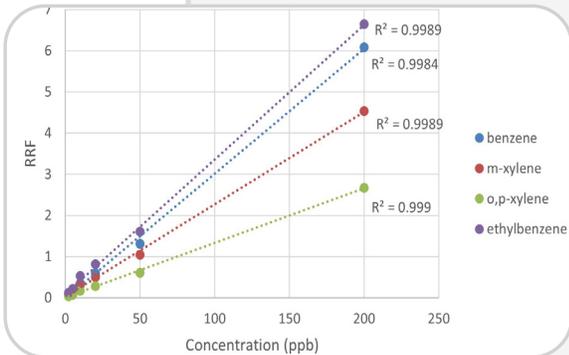
Introduction

CDS Analytical is celebrating its 50th anniversary. CDS Analytical was founded by Dr. Eugene Levy in Nottingham, PA in 1969, and moved to its state-of-the-art Oxford, PA facility in 1981. Over the past 50 years, CDS Analytical has been expanding its core business from Analytical Pyrolysis to a full range of GC Sample Introduction methods, including Thermal Desorption, Purge & Trap, and Dynamic Headspace.

The CDS-8500 is now the latest installment in the Purge and Trap concentrator line having originated from the legendary 7000 series concentrator. Combined with a cutting-edge 3rd generation autosampler, the unmatched reliability and chromatographic resolution will make the 8500 a perfect fit for US EPA methods 524 (drinking water), 624 (waste water), and 8260 (soil and water).



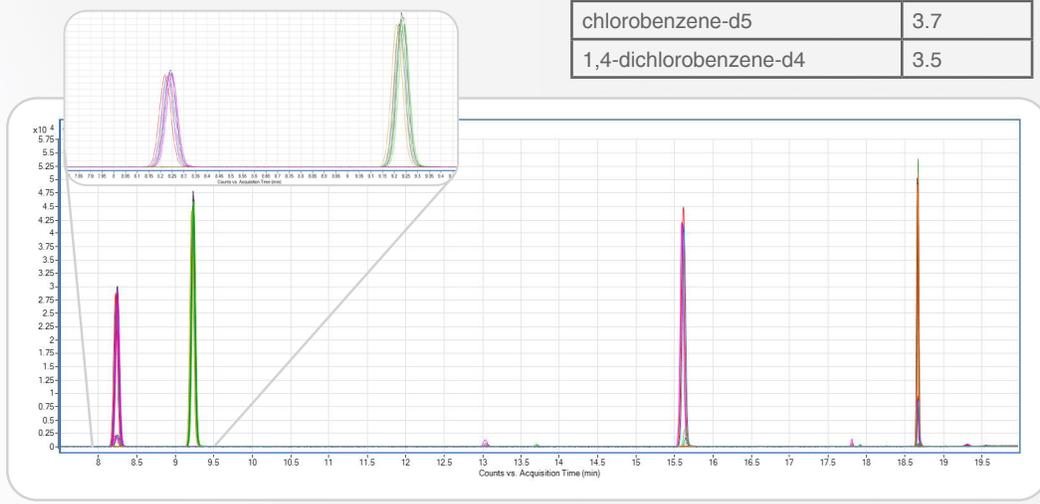
EPA 8260 VOC's at 20 ppb concentration



Linear calibration curves for BTEX components.

- Patented Foam Sensor
- Optional N₂ and He Dual Channel MFC
- Clog Resistant, Wide-Bore Drain Solenoid
- Exceeds the EPA 8260D Method Requirements
- Silconert 2000 and PEEK Inert Coated Sample Pathway
- Proprietary Membrane-type Heater for Sparge Vessel
- 8-port Valco Higher Temperature Valve for Online Moisture Removal

Internal Standard Compound	%RSD
pentafluorobenzene	2.2
1,4-difluorobenzene	2.9
chlorobenzene-d5	3.7
1,4-dichlorobenzene-d4	3.5



Overlay of extracted ion chromatograms for EPA 8260 internal standards at 25ppb (n=7) over 12 hours.

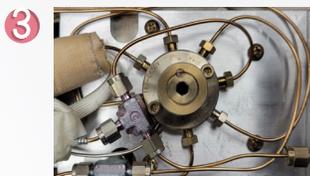
8500C Purge and Trap Concentrator



1 High temperature (350 °C) pneumatic 8-port valve



2 Insulated valve oven



3 Siliconert 2000 coated sample path



4 High temperature transferline (350 °C)



5 Optional membrane-type sparge heater



6 Air-cooled trap with quick access compartment

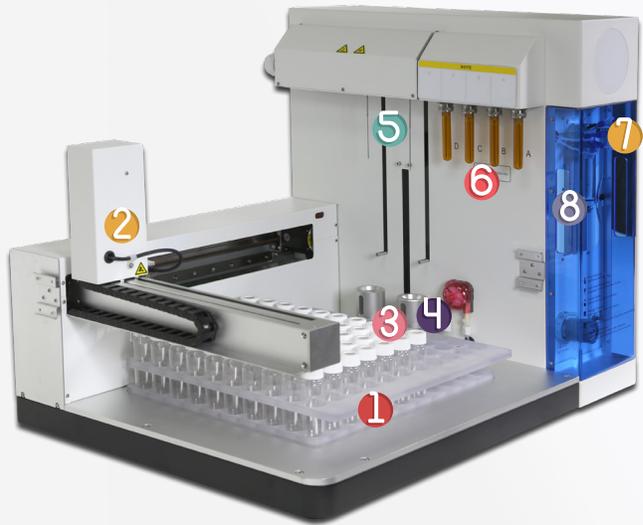


7 Quick release sparge door



Interface for independent concentrator software control

8500A Purge and Trap Water and Soil Autosampler



1



110 Position Autosampler

5



Separate Water and Soil Needles to Prevent Cross-Contamination

2



4 Prong Gripper

6



4 Channels for Internal Standards, Surrogates, and Matrix Spikes

3



Magnetic Stirrer for Water and Soil Samples

7



PEEK Sample Pathways

4



Independent Water and Soil Sample Stations

8



Precision Syringe for 5 and 25 mL Samples with Automated Sample Dilution

Additional 8500A Features

- Optional Chiller Tray
- Built-In EPA Methods
- No Cold Spots and No Active Sites
- Pre-loaded Autosampler Calibration Coordinates
- Choice between Water Rinse and Methanol Extraction
- Dilute up to 1:100 with Automated Dilution Sample Preparation
- Fast Moving Autosampler with Water Sampler Delivery within 1 Minute
- Protect Methods and Sequences with Security Access Level Setup and Password Protection
- Equipped with EPC for Precise, High-Speed Injection of Internal Standards with High Reproducibility for < 5% RSD



Product Specifications

8500A Max Temperatures

- Soil Needle Oven 180°C
- Soil Transferline 350°C
- Soil Cup 150°C
- Hot Water Rinse 95°C

8500C Max Temperatures

- Valve Oven 350°C
- GC Transferline 350°C
- Wet Trap 300°C
- Analytical Trap 300°C
- Sparge Vessel Heater 90°C

8500C options

- Dual N₂ and He MFC

Product Dimensions

	Autosampler Dimensions	Concentrator Dimensions
Height	36" (91 cm)	20" (51 cm)
Width	21" (53 cm)	7" (18 cm)
Depth	24" (61 cm)	14" (36 cm)
Weight	80 lb (36 kg)	40 lb (18 kg)
Line Voltage	115V or 220V	

8500 User Interface

The homescreen of the 8500 uniquely provides real-time updates on system health for communications, system pressure, purge gas, and active module configuration.

Method Editor allows users to create separate methods for not only for Water and Soil samples, but also performing Methanol Extraction and System Bake. Create your purge and trap method or use pre-loaded methods for all the critical EPA methods such as 8260, 524, and 624.

Account

My Profile Users Department Company **Authorization** Login Settings

All Roles (5) Add

- engineer
- guest
- user
- manager
- admin

Technician's Authorities

<input checked="" type="checkbox"/> Level I	<input checked="" type="checkbox"/> Level II	<input checked="" type="checkbox"/> Level III
<input checked="" type="checkbox"/> Account	<input checked="" type="checkbox"/> AutoSampler	<input checked="" type="checkbox"/> System Wash
<input checked="" type="checkbox"/> Method	<input checked="" type="checkbox"/> Concentrator	<input checked="" type="checkbox"/> Leak Detect
<input checked="" type="checkbox"/> Sequence	<input checked="" type="checkbox"/> Location Calib	<input checked="" type="checkbox"/> Instd
<input checked="" type="checkbox"/> Log	<input checked="" type="checkbox"/> Location Test	<input checked="" type="checkbox"/> Heater
<input checked="" type="checkbox"/> Setting	<input checked="" type="checkbox"/> SystemInfo	<input checked="" type="checkbox"/> SolenoidValve
<input checked="" type="checkbox"/> Maintenance		<input checked="" type="checkbox"/> Sampler
		<input checked="" type="checkbox"/> SampleLifting
		<input checked="" type="checkbox"/> Inject Pump Control

GC Run #:-/- AutosamplerIdle Concentrator:Purge Ready 2023/01/20 15:02:51 W axis reset

Create users accounts and control security access levels to confidential secure methods, sequences, calibration, and more.

Sequence Table

New Open Save

Samples

Status	Vial #	Sample code	Method file	Method type	IS A(μL)	IS B(μL)	IS C(μL)	IS D(μL)	Blanks per vial	Samples per vial	Dilution ratio
1		water_sample_1	EPA 8260D Water	Water sample	5	5	0	0	0	1	1:1
56		soil_sample_1	EPA 8260 Soil	Soil sample	5	5	0	0	0	1	1:1
ADD											

Start

GC Run #:-/- AutosamplerIdle Concentrator:Purge Ready 2023/01/19 16:21:52 Multi-p

The random access sequence table allows users to select and run any sample vial in the 110 position autosample while seamlessly alternating between water and soil samples.

Always Use

CDS Analytical's 8500C focusing trap is made of stainless steel and inert coated to remove any active site. A laser printed arrow is marked on the body to show the trap direction in installation.



Part Number	Description	Inert Coating	Size
30E2-5114	Type K (Vocarb 3000)	Yes	1/8" x 11 1/4"
30E3-5063	Tenax TA	Yes	1/8" x 11 1/4"
30E3-5069	3% SP-2100/Tenax TA	Yes	1/8" x 11 1/4"



Thermal Desorption

Pyrolysis

Purge and Trap

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