



*See What's Really There™*

**CS1200E Passive  
Canister Sampler**



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PASSIVE**  
**Canister Sampler**

***Solutions for Time Integrated Canister Sampling.***



**CS1200ES Silonite™ Coated  
Passive Canister Sampler**

## CS1200E Passive Canister Sampler

The best solution for low level EPA TO-15 monitoring.

The CS1200E is a high-purity flow regulation system designed to reliably fill canisters at a constant rate from vacuum to within 1 psi of atmospheric pressure without requiring any power. Unsurpassed flow path inertness and a newly revised flow design enhances TO-15 compound recovery while improving flow stability at a wide range of ambient temperatures. No other sampler has scientific data supporting the recovery of sub-PPB level TO-15 compounds. The CS1200E has been verified to fill 6L canisters at a constant rate for up to 1 full month!

### Features

- Time Integrated Sampling**

Accurately fill 6L Silonite™ Canisters with integration times from 15 minutes to 1 month at more stable and reliable flow rates than any other flow controller, with verified recovery of TO-14 / TO-15 compounds. The CS1200E can be easily capped off during shipping to prevent any risk of sampler contamination.

- Silonite™ Coated Filter and Inlet Lines**

A large Silonite™ coated stainless steel filter is positioned at the inlet to maintain an inert and unobstructed flow path by eliminating particles. CS1200E Inlet lines are electropolished, then Silonite™ coated. (An optional Silonite™ coating of complete sampler is also available.)

- Vacuum Gauge**

Our exclusive gauge with a leak-tight ¼" compression fitting avoids any need for absorptive Teflon® tape in the controller flow path.

- Stable Restrictor Design**

Inlet restrictors provide stable operation from -20°C to +50°C. Now with 9 restrictor ranges covering 15 minutes to 1 month.

## Did you know?

304 and 316 stainless steel contain 67–70% iron, which is very reactive toward many TO-15 compounds.

### Why Silonite?

Untreated 300 series stainless steel is 67–70% iron, which is very reactive toward many TO-15 compounds. In addition, untreated stainless tubing has an internal oxide layer that readily adsorbs polar and heavier VOCs. The standard CS1200E inlet now comes internally polished, passivated, and Silonite™ coated to insure maximum recovery of all target compounds – virtually eliminating losses and carryover. The Silonite™ coated filter is placed on the inlet to completely eliminate dust and particulate intrusion during sampling. The inlet is capped off to avoid any contamination risk during shipping.



**Silonite™ Filter Inlet Kit w/ Rain Guard – PN: 39-92204S**

**Table 1 – CS1200E | Restrictors and Canister Fill Duration Range**

CS1200E   Restrictors					
Part #		Flow Range	Code	Replacement Restrictor Part #	
Silonite™ Coated	Uncoated			Silonite™ Coated	Uncoated
39-CS1200E50	39-CS1200E0	150 – 450 cc/min.	0	39-23000S	39-23000
39-CS1200E51	39-CS1200E1	50 – 150 cc/min.	1	39-23010S	39-23010
39-CS1200E52	39-CS1200E2	20 – 60 cc/min.	2	39-23030S	39-23030
39-CS1200E52+	39-CS1200E2+	12 – 36 cc/min	2+	39-23160S	39-23160
39-CS1200E53	39-CS1200E3	7 – 21 cc/min.	3	39-23080S	39-23080
39-CS1200E53+	39-CS1200E3+	4 – 12 cc/min.	3+	39-23160S	39-23160
39-CS1200E54	39-CS1200E4	2 – 6 cc/min.	4	39-23240S	n/a
39-CS1200E54+	39-CS1200E4+	1 – 3 cc/min.	4+	39-23480S	n/a
39-CS1200E55	39-CS1200E5	0.5 – 1.5 cc/min.	5	39-24010S	n/a
39-CS1200E56	n/a	0.2 – 0.6 cc/min.	6	39-24020S	n/a
39-CS1200E57	n/a	0.1 – 0.3 cc/min.	7	39-24040S	n/a



Fill Duration	Recommended Restrictor for Volumes and Fill Times								
	450mL	600mL	1L	1.4L	2L	2.7L	3.2L	6L	15L
15 min.	2+	2	1	1	1	0	0	0	—
1 hr.	3+	3+	3	2+	2+	2	2	1	0
3 hrs.	4+	4	4	3+	3	3	3	2+	1
8 hrs.	5	5	4+	4+	4	4	3+	3	2+
12 hrs.	6	5	5	4+	4+	4	4	3+	2+
1 day	6	6	5	5	5	4+	4+	4	3+
2 days	7	7	6	6	5	5	5	4+	4
7 days	—	—	—	7	7	7	7	6	5
14 days	—	—	—	—	—	7	7	7	5
30 days	—	—	—	—	—	—	—	7	6

Assuming canisters are filled to 4" Hg below atmosphere

**Important!** Calibrate your CS1200E using the latest flow table online. Visit [www.entechinst.com/CS1200E/](http://www.entechinst.com/CS1200E/)

Or, let the Entech Flow Professor™ handle all the calibrations automatically! Visit [www.entechinst.com/FlowProfessor](http://www.entechinst.com/FlowProfessor)

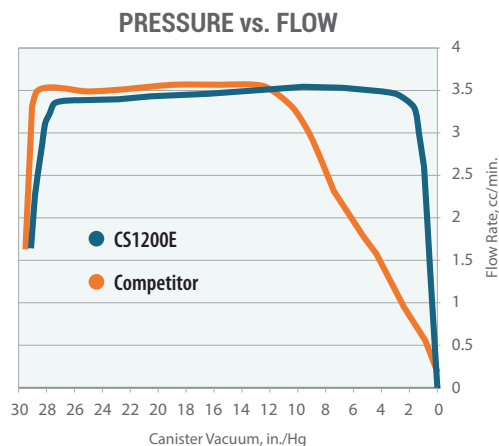
## Time Integrated Sampling

Time integrated VOC concentration can be easily determined by sampling into canisters at a constant flow rate. Canisters can be filled to nearly atmospheric pressure using an ultra-clean, mechanical flow controller. Sapphire orifices combined with pressure regulation offer superior flow stability when compared to needle valve or frit regulated controllers. Different orifices are available to fill a 6L canister over 1, 3, 8 or 24 hours, or even 1–2 weeks. Part numbers for CS1200E flow controllers are separated by flow range. One flow range can be changed to another by attaching the appropriate critical orifice shown in the table below. Silonite™ coated flow controllers are designated with an “S” following the part number.

**PN 29-STAND-1-3M**  
(Sampler and Canisters sold separately)

## A Compact and Clean Flow Path

The CS1200E includes a high-resolution, vacuum gauge with a ¼” compression fitting. This design, exclusive to Entech, completely eliminates messy and absorptive Teflon® tape from the controller flow path. A threaded inlet cover prevents filter contamination and also acts as a rain guard when sampling to prevent moisture from clogging the inlet filter or orifice. This feature is ideal for sampling in wet environments, or when performing trace-level measurements with required detection limits below 200 part-per-trillion.



CS1200E Maintains constant flow rates closer to atmospheric pressure.

## TOOL FREE OPERATION!

Enjoy complete tool free operation in the field using the new hand tightened cap and Micro QT Valve adaptors. Never lose nuts and ferrules again, and keep your customers happy and coming back time and again! Ditch the tools, once and for all!

**CS1200E Passive Canister Sampler and 1.4L MiniCan™ shown.**  
(Sampler and Canisters sold separately)

## Time Integrated Sampling

Accurately fill 6L Silonite™ Canisters with integration times from 15 minutes to 1 month with demonstrated reliable recovery of EPA TO-14 and TO-15 compounds. No other technique can collect C<sub>1</sub> – C<sub>12</sub> compounds quantitatively.



**Dual MiniCan Adapter**  
PN: 39-99032



**Dual Can Adapter**  
PN: 39-99006B

Fill 2 canisters accurately for validation by a second laboratory analysis.

## Amazing Low-Flow Stability

More stable and reliable flow rates than any other available flow controller.

## Silonite™ Coated Inlet Lines

The CS1200E features Inlet lines that are electropolished, then Silonite™ coated.

## Silonite™ Coated Filter

A large Silonite™ coated stainless steel filter is positioned at the inlet to maintain an inert and unobstructed flow path by eliminating particles.

## New Kit Packaging

Our new kit packaging features an integrated accessories box for the CS1200E and room for one 6L Canister, or four 1.4L MiniCans™.

PN: 29-22062 and 29-22064





**7200**  
Preconcentrator



**7650-L20**  
GC Gas Autosampler



**7016D**  
Canister Autosampler



**5400B**  
Thermal Transfer System



**3108D**  
Canister Cleaning System

*The Recognized Global Leaders  
in Environmental Air Analysis.*

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CS1200E Passive Sampler –190729-9.0



*Our new kit packaging is ideal for field sampling. Packaging includes an integrated sampling accessories box plus room for one 6L canister, or four 1.4L MiniCans™.*

**PN: 29-22062 and 29-22064**