



*See What's Really There™*



# VOC Breeze

— SMART AIR SAMPLER —

**VOC**  **BREEZE™**  
SMART AIR SAMPLER

# VOC-Breeze™ - Smart Air Sampler

Introducing the VOC-Breeze from Entech Instruments—the most sophisticated yet easy-to-use solution for collecting air samples in evacuated canisters. The VOC-Breeze delivers precise, constant rate sampling accurately filling canisters to a programmable 2-3.5" Hg below local atmospheric pressure, achieving a consistent maximum fill volume every time. This level of control ensures optimal dilution of trace contaminants within the canister, supporting accurate analyses and enabling multiple tests from a single sample. The VOC-Breeze records critical sampling parameters, including start/end times, initial and current pressures and temperatures, providing a highly reliable and time-weighted sampling process that exceeds the accuracy of all other competing solutions currently on the market.

Did we say smart? The ability to enter the serial number of each canister ties it to a specific sampling event and location, ensuring a superior chain of custody that was often lacking in the past. An optional handheld controller (VOC-VIEW™) or computer with a serial or Bluetooth connection allows for both office and field programming and data retrieval, providing maximum flexibility. Additionally, the smart push-button interface with LED feedback makes leak checks, flow confirmation, and local atmospheric pressure recording easy to perform in the field without needing an external device. For even greater convenience, Bluetooth pairing with a single Entech-supplied dongle allows connection to hundreds of VOC-Breeze samplers, simplifying programming and data retrieval in the office or the field.



Scheduled



Manual Start



VOC Event Triggered



Remote Start

**Multiple Start Options:** Sampling can be initiated via a local start button, programmed start time, remote wireless connection or external trigger such as a TVOC sensor.

## Extremely Accurate Temperature Compensated Sampling:

The VOC-Breeze measures and records at least 100 temperature compensated pressure points during the fill process, ensuring canisters fill at a constant rate with less than a 0.5% error over the sampling period.



2.5" Hg Vacuum

## Exact Final Pressure:

Every sampling ends precisely at the target vacuum pressure, ensuring accurate and consistent results every time.

## Numerous Programming Options:

Communicate with the VOC-Breeze using stationary or portable PC devices, or the amazing VOC-VIEW SyncPad that optimizes the VOC-Breeze experience.



VOC-VIEW SyncPad



Portable Windows Device using Dongle / Bluetooth



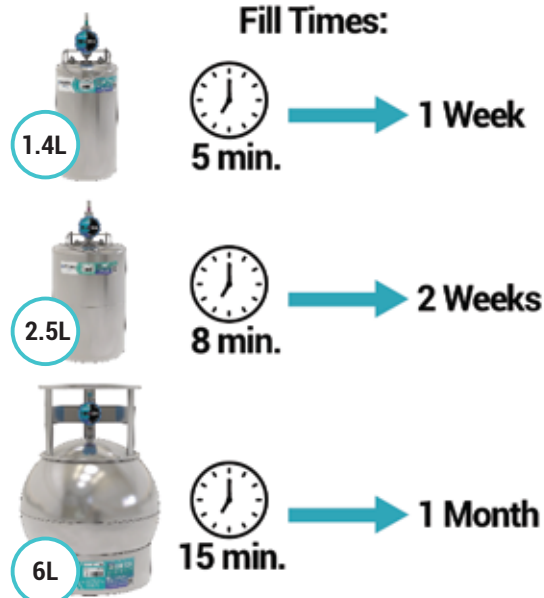
Laboratory PC with Serial Interface

## Maximizing the Amount of Sample Collected

Unlike many of today's mechanical flow controllers which require setting the target vacuum at 5-6" Hg due to inherent flow inconsistencies, the VOC-Breeze provides precise fill rate control. This accuracy not only optimizes the sample volume, allowing for multiple analyses if needed, but also supports the use of smaller canisters, reducing transport costs while allowing automated robotic sample handling in the lab – further lowering total cost per sample.

Choosing from several target final pressures in the range of 2-3.5" Hg below atmospheric pressure, the VOC-Breeze achieves that target pressure within  $\pm 0.2$ " Hg, thereby optimizing the amount collected every time, while creating unparalleled, constant time weight average sampling.

**Versatile Fill Options:** VOCB achieves fill times as long as 1 month into a 6L canister, 2 weeks into a 2.5L canister, & 1 week into a 1.4L canister.



### Next Generation Flow Control:

The VOC-Breeze "breathes" the sample in, much like people breathe, but in such tiny breaths that a fill time as long as 1 month can be achieved with a proven, recorded linear increase in pressure during the entire event. A Silonite coated flow path ensures complete delivery of the sample, and the VOC-Breeze accomplishes both On/Off control and flow control using less Viton than today's mechanical canister samplers, so cleanliness is no issue.



**Flexible Communication:** Bluetooth connectivity dongle for easy setup and programming.



**Weather-Tight Enclosure:** Ensures durability and reliability in all conditions.



**Extended Deployment:** Optional solar panel for long-term, remote monitoring.



**Comprehensive Data Logging:** Records atmospheric pressure, initial & final vacuum, GPS location, and hundreds of temperature compensated pressure readings while sampling.

**TO-15A  
/ 327**

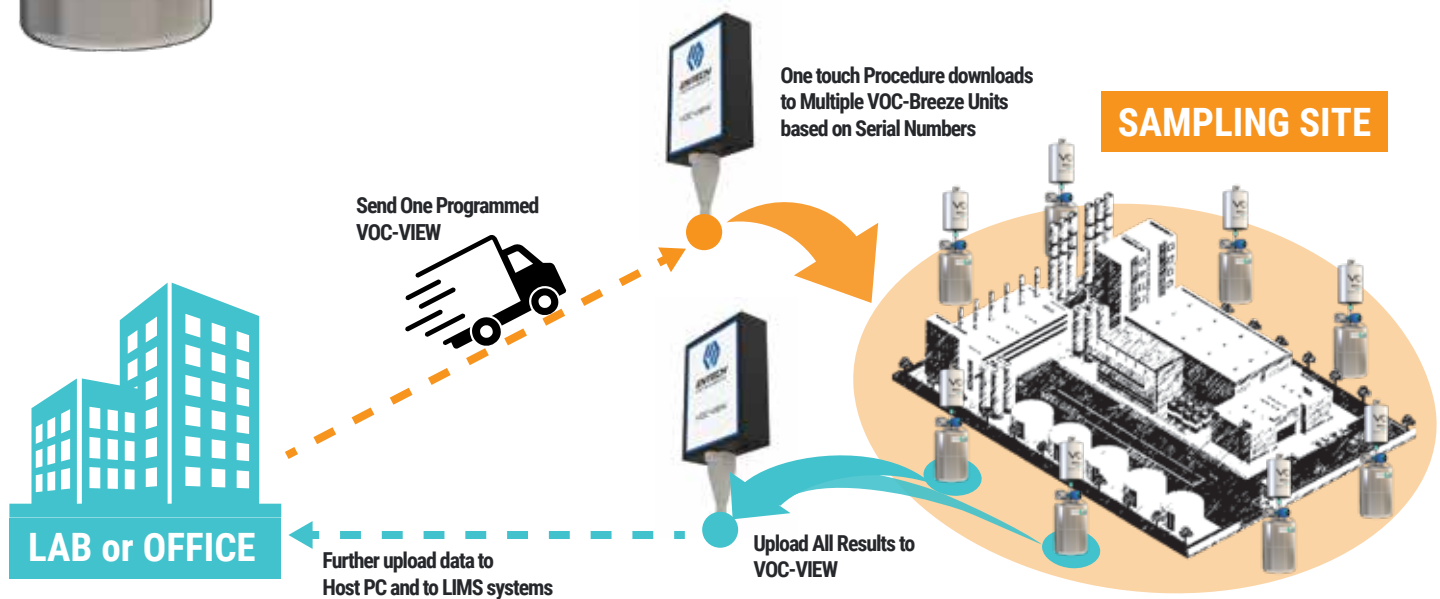
**Method Compatibility:** Compatible with new US EPA Methods 327 and TO-15A.



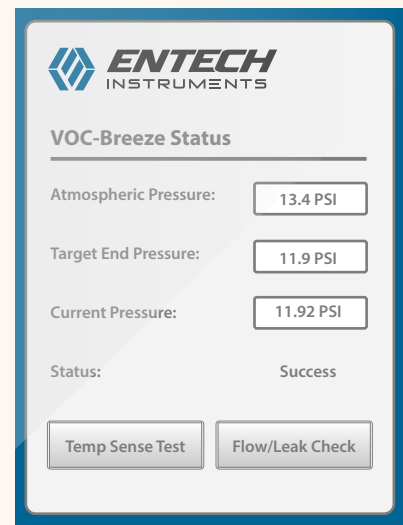
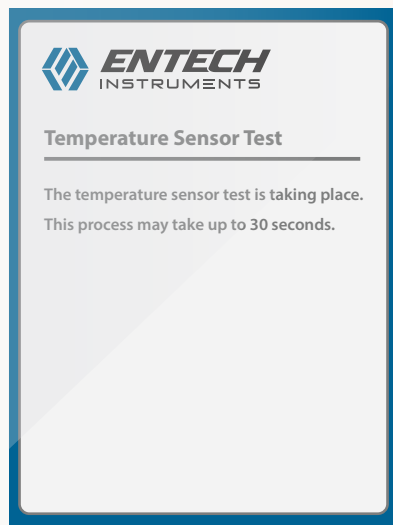
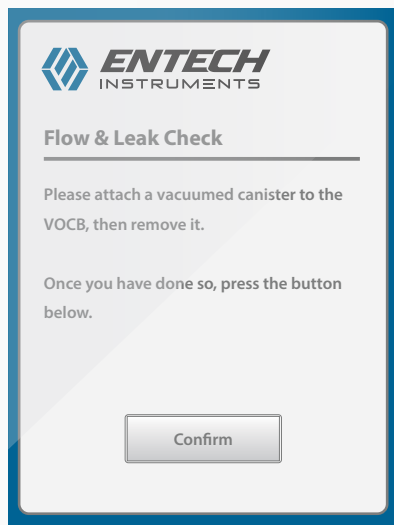
## VOC-VIEW SyncPad

The VOC-VIEW SyncPad is a compact handheld touch screen device designed to interface seamlessly with the VOC-Breeze, providing an intuitive user experience for field operations. It supports interaction with lab and field personnel through its graphical interface, allowing users to program the VOC-Breeze, log sampling runs, and retrieve data efficiently. The VOC-VIEW displays essential sampling information such as start/end times, pressure readings (Local Atm, Start, End, % error from Target), and allows data to be uploaded to a host device at the lab or office for further analysis. The VOC-VIEW SyncPad enables centralized programming of multiple VOC-Breeze units with 1 touch field programming based on which VOC-Breeze serial number it is communicating with. It supports canister serial number entry and VOC-Breeze pressure sensor calibration utilizing full vacuum and local atmospheric references as confirmed via GPS readings. This advanced functionality makes the VOC-Breeze and VOC-VIEW combination an ideal solution for air sampling professionals.

## Programming & Data Sync



The VOC-VIEW SyncPad software displays essential sampling information, such as start/end times, pressure readings, and temperature, and allows users to upload data to a host device for further analysis. Additionally, it supports procedural downloads, canister serial number entry, and pressure sensor calibration, flow and leak checks, enhancing the overall efficiency and reliability of sampling operations.



## VOC-Breeze PC Software

The VOC-Breeze PC software offers powerful capabilities for managing and optimizing air sampling operations. It allows users to program and extract data from up to four units simultaneously, significantly enhancing efficiency. With the software, users can set key parameters such as sampling start and end times, target pressure, and conduct essential procedures like leak checks and sensor verifications, all while storing the results in a centralized database. This enables detailed tracking and streamlined operation, ensuring that every sampling event is executed accurately and reliably. The user-friendly interface facilitates both programming and data retrieval, making it an invaluable tool for ensuring the success of air sampling projects.

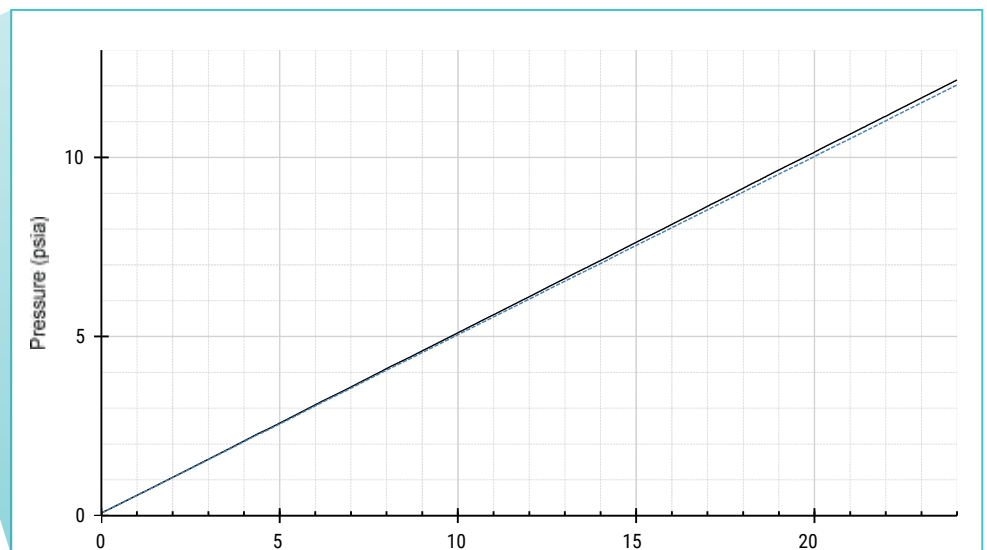
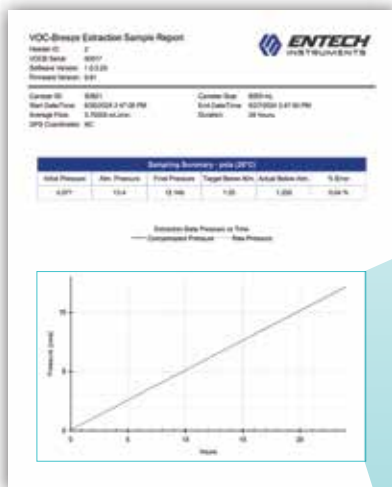


### Quality Assurance:

New canister-based air monitoring methods, such as US EPA Methods 327 and TO-15A, require proof that canisters and samplers are clean to very low levels—typically below 0.02 ppb for most compounds. Unlike other canister samplers, which rely on flow control based on atmospheric pressure, the VOC-Breeze uses absolute flow control technology, eliminating the need to challenge the sampler/canister combination using an atmospheric pressure stream of humidified blank or calibration gas. Instead, simply attach a pressurized challenge standard or blank directly to the VOC-Breeze with a clean canister, and after filling, the canister can be analyzed to verify cleanliness or analyte recovery.

## VOC-Breeze Reporting

The reports feature of the VOC-Breeze software provides detailed insights into each sampling event, including all adjustments made for temperature throughout the sampling process. By tracking temperature compensation and related adjustments, the reports ensure that users have a comprehensive record of sampling conditions, helping validate data accuracy and ensuring quality control in every sample collected.



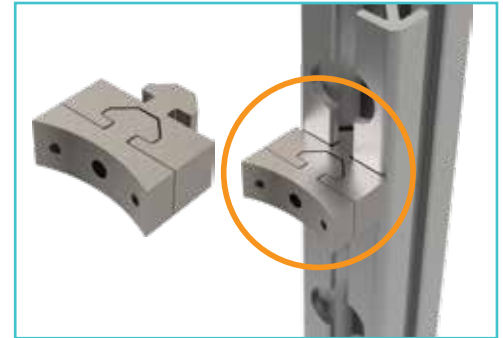
Extraction Data Pressure vs Time  
— Compensated Pressure    - - - - Raw Pressure



# Ordering Information

Description	Unit	Part #
<b>VOC-Breeze Sampler</b> - Smart Canister Fill Controller monitors and controls canister fill rates to the target pressure every time. Weather resistant enclosure 2-3 month battery life per charge, with solar panel charging option Bluetooth dongle allows programming at the lab/office, or in the field.	EA	<b>VOCB-01</b>
VOC-Breeze to TrueSeal Adapter	EA	VOCB-TSV
VOC-Breeze to Female MQT Valve Adapter	EA	VOCB-FQT
VOC-VIEW Touchscreen Field Controller	EA	VOCB-CVIEW
VOC-Breeze USB Interface - Requires USB A or C to USB B cable	EA	VOCB-USB-IO
VOC-Breeze Bluetooth Interface Dongle	EA	VOCB-BT-IO

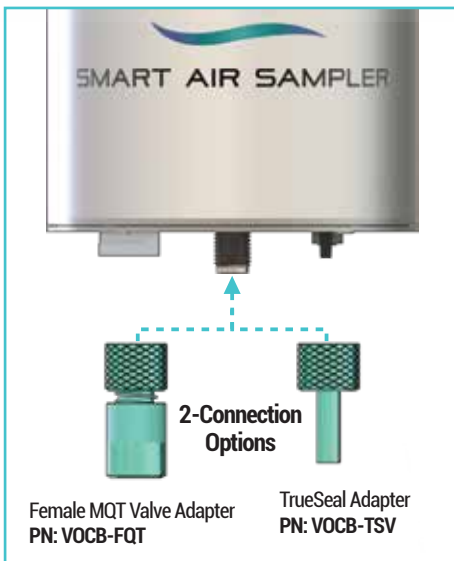
Description	Unit	Part #
VOC-Breeze Replacement Inlet Filter	EA	VOCB-INL-F
VOC-Breeze Mounting Rail, 48 cm	EA	VOCB-RAIL-48
VOC-Breeze Rail Bracket for 1 to 1.4L Canisters	EA	VOCB-RAIL-14L
VOC-Breeze Rail Bracket for 2.5L Canisters	EA	VOCB-RAIL-25L
VOC-Breeze Enclosure for (1) 6L Can, or (2) 2.5L Cans	EA	VOCB-CANSTATION-1
VOC-Breeze 9" Portable Solar Panel Module	EA	VOCB-SPNL-9



VOC-Breeze Rail Bracket for 2.5L Canisters  
PN: VOCB-RAIL-25L



VOC-Breeze Rail Bracket for 1 to 1.4L Canisters  
PN: VOCB-RAIL-14L



VOC-Breeze Mounting Rail, 48 cm  
PN: VOCB-RAIL-48



VOC-Breeze Rail Bracket for 6L Canisters  
PN: VOCB-RAIL-VS

## Modes of Operation

1. Start/Stop Sampling Activated by User onsite, with pre-programmed sampling duration.
2. Scheduled sampling for any date in the future.
3. Local Trigger Event sampling, utilizing pre-programmed sampling duration.
4. Long Term Deployment using Optional Solar Panel.
  - a. Allows equilibration to local air mass, with just canisters swapped out during event or continuous monitoring.
  - b. Data retrieved via smart device upon swapping of collected canister with new, evacuated canister.
  - c. Each canister removal resets the VOC-Breeze to local atmospheric pressure, to ensure straight line pressure ramping throughout the sampling period.

## VOC-Breeze's Specifications

**Weather-Tight Enclosure:** Pressure test port to ensure effectiveness of seals

**Fill Times:** 1.4L canister: 5 min to 1 week  
2.5L canisters: 8 min to 2 weeks  
6L canisters: 15 min to 1 month

**Inlet:** Tool free connection of inlet filter, with low volume rain guard, all Silonite coated.

**Sample Start Options:**

1. Button on bottom of sampler
2. Scheduled start time/date
3. Contact Closure Trigger through RJ45 Connector

**Programming Options:**

1. Laboratory Windows PC via serial interface
2. VOC-VIEW Portable Programmer
3. Portable Windows Device using USB Dongle

**Pressure Sensor:** 0-15 psia, 0.3% Accuracy, Temperature Compensated

**Temperature Compensation:** Canister Temperature Monitored to Continuously Calculate Pressure adjusted to 25 °C

**Flow Path:** Silonite coated 316 Stainless Steel

**Canister Connection Options:** Micro QT Valve, Flowmate Fitting; ¼" tube to TrueSeal Valve (requires 9/16" wrench)

**Size:** 3.80" Diameter x 5.72" Length

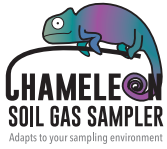
**Weight:** 3.1 lbs

**Rail mount:** 40 x 40mm connection tabs standard

**Battery Life:** 2 months typical

**Battery Life w/ Solar Panel Connection:** 2-3 Years





**CHAMELEON**  
Soil Gas Sampling



**MICRO-QT™**  
Valves



**SILONITE™**  
Cooling Advantages



**MCCTS TRAPS**  
Multi-Capillary Column Trap



**FLOW PROFESSOR**  
Calibration System

*Streamline your canister operation by maximizing lab efficiency and productivity while improving the reliability of analytical results.*

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