



**ENTECH**  
INSTRUMENTS

*See What's Really There™*



# 2022 CATALOG

Solutions for Chemical Monitoring & Analysis

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## President's Letter



Entech Instruments is continuing its tradition of providing the most advanced and accurate sample preparations systems available for headspace and gas sample analysis by GC and GCMS. Our new Multi-Capillary Column Trapping Systems (MCCTS) are transforming the way that gas phase sample preconcentration is performed prior to GC injection, all without the use of liquid nitrogen or even electronic cooling systems. These "fan cooled", extremely robust and reliable multi-stage capillary column traps manage water and CO<sub>2</sub> hundreds of times better than any packed trap system. This means much faster release for better chromatography, supporting "faster" GC methods, while also demonstrating far better immunity to contamination when exposed to high concentration

samples. Our MCCTS traps have been implemented in a full cryogen free TO15 solution with much faster GC injections and shorter run times than other TO15 systems on the market. Other applications using this revolutionary capillary trapping technology will also soon be announced.

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Entech's patent pending Sorbent Pen™ technology takes SPME to the next level by providing enhanced sensitivity, improved quantitation, and greater robustness than its fiber-based predecessor. Sorbent Pens utilize a unique flow through cartridge that forms a seal on a vial allowing a vacuum to be created within the vial. This new technique called VASE (Vacuum Assisted Sorbent Extraction) has been demonstrated to cover the entire range of analytes from the lightest volatile compounds (Freon 12/Vinyl Chloride and others) to very heavy 5-6 ring PAH compounds, while remaining in the headspace to avoid actual contact with the sample matrix. With 50-150x higher phase loading and the use of traditional adsorbents with thousands of times more surface area than SPME, the Sorbent Pen™ can fully extract difficult compounds from complex matrices providing superior sensitivity and reproducibility. Sorbent Pens are also available for performing Diffusive and Active air monitoring, making the Sorbent Pen technique extremely versatile. Our newly released SPR40 -Sample Preparation Rail promises to be a game changer for headspace sample preparation and general thermal desorption methods. Rather than desorbing a TD tube into a completely different instrument with separate traps, transfer lines, and rotary valves to have to clean and maintain, the SPR40 allows thermal desorption of Sorbent Pens directly into a GC or GCMS to allow dramatically improved recovery, consistency, and easy of maintenance. Watch for a new wave of applications coming out in 2019-2020 using the SPR40 Robotic inlet.

Our unmatched Silonite™ surface coatings continue to be perfected, resulting in the most consistent, durable, and inert coatings available for GC inlet systems and for mercury vapor handling without surface interactions. Silonite™ surface treatments play a vital role in achieving our ultimate goal; to provide our customers with complete solutions for "analytical grade" VOC and SVOC handling and inlet systems that can sample, store, and recover virtually all GCMS compatible compounds.

Finally, for US EPA Method TO-15 and China HJ-759, Entech is proud to be the only supplier that manufacturers and supports the complete solution for sampling and analysis of airborne contaminants using Silonite™ coated stainless steel canisters. Entech has assembled an extraordinary and talented team of Chemists and Service Engineers with a combined knowledge of over 200 years of laboratory and field experience – to provide our clients with premier customer service and on-site support. To our valued customers we would like to say thank you for your patronage through the years and we look forward to servicing your analytical needs for many years to come.

Sincerely,  
Daniel B. Cardin – President



Entech Instruments is a leading developer and manufacturer of analytical instrumentation that supports professionals around the world in the Environmental, Industrial Hygiene, Food & Beverage, Product Testing, Forensics, and Clinical Analysis markets.

To provide solutions for such a diverse set of industry applications, Entech has assembled an extraordinary and talented team – a combined knowledge of over 200 years of laboratory and field experience – to provide our clients with premier customer service and on-site support. We invite you to share your application challenges and requirements so we can create a customized solution just for you.

~ The Entech Team

# Flow Professor™ Calibration System

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

The Flow Professor is the easiest and most accurate way to calibrate the CS1200E for TO-15 or TO-15A Time Integrated Sampling. Only the CS1200E can be calibrated using this unique system, handling canisters ranging from 0.45L to 15L. From within the easy to navigate Flow Professor™ software, simply set canister size, sampling duration, and the remaining canister vacuum desired at the conclusion of sampling (typically 2-4" Hg); then attach the Flow Professor™ to the front of the CS1200E and select Start Calibration from the software menu. The Flow Professor™ system proceeds to automatically adjust the flow setting of the CS1200E to obtain the ideal flow rate, every time. Attempting to achieve such precise calculations and flow controller adjustments manually would be difficult and time consuming at best. The Flow Professor™ makes it all easy!

The CS1200E features fantastic low-flow stability, and accurate sampling for a 6L canister can be set from 1 hour to a full 2 weeks. Can you imagine doing continuous monitoring at a field location and only collecting 2 samples a month? Now that process is easily automated with the Flow Professor™. Even the quality of the restrictor and diaphragm are verified to ensure consistent flow rates. Generate a calibration report for easy long-term reference and send the CS1200E out to the field in Entech's new shipping boxes that perfectly protect both canister and CS1200E flow controller in a single compact package.

The Flow Professor™ + CS1200E + Silonite™ Sampling Canister = Your Secret to Success. A winning combination for today's modern air laboratory.



*Flow Professor™ Calibration System (PN 39-FP-03) shown with CS1200E Sampler and 6L Silonite™ Canister.*

Description	Unit	Part #
<b>Flow Professor™</b> (CS1200E Calibration System)	EA	39-FP-03
<b>100cc Ballast Assembly</b>	EA	39-FP-BALLAST
<b>600cc Ballast Assembly</b>	EA	39-FP-BALLAST-600



### MINIMUM COMPUTER REQUIREMENTS:

**Requires a 64-bit Processor and Operating System**

**OS:** Windows 7 or 10 Professional 64-bit computer with .Net Framework 4.7.1 or later

**Processor:** Dual-Core, Pentium I5 (WIN7 Gen6 is max) Processor or better

**Memory:** 8GB of RAM

**Monitor:** 1280x768 (16:10 aspect ratio)



*Calibrate up to four CS1200E's at the same time!*

### When To Use a Ballast

Flow Rate	Ballast Required	Restrictor Range
0 - 4.9 cc/min	None	4, 4+, 5, 6, 7
5 - 99 cc/min	100 cc	1, 2, 2+, 3, 3+, 4
100 - 600 cc/min	600 cc	0, 1