



**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

## TM1200 Canister Sampling Timer

The TM1200 is Entech's next generation canister sampling timer that automatically starts and stops the sampling process at specific times. Now you can easily start a 24 hour sample at midnight and stop it at midnight the following night without having to be present. Typically operated with our CS1200Ex canister sampler to time integrate the sampling event for a 24 hour sample, the TM1200 creates an optimized solution by exposing the collected sample to a very short, inert flow path for maximum compound recovery and minimal carryover. The TM1200 uses very little power, operating up to 6 continuous months before having to replace the single 9VDC battery. A battery status indicator shows you when there is less than one month of battery life left, giving you plenty of notice so you don't miss a sampling event. The internal latching valve was specially designed to minimize the exposure to the sealing elastomer for an unparalleled reduction in contamination potential. The TM1200 is sealed against water introduction and has a sun shield to keep the timer cooler while allowing easier programming in bright sunlight. Select any day of the week, and any time to start and stop the sampling. Several start/stop events can be programmed if more sophisticated sampling schedules are needed. When sample collection is needed once every 6 days, the TM1200 can be quickly reprogrammed to the new day.

- 7 day timer with up to 17 on/off events.
- Inert, high purity Isolatch valve uses "zero power" once activated.
- 4 to 6 month 9VDC battery life, or longer when placed in "sleep mode".
- Manual valve activation allows canister pressure check before / after sampling.
- Water tight cap and sun shield protects the TM1200 from the elements
- Designed for Entech CS1200E sampler for long term, time weighted sampling.
- Silonite coating is available for the ultimate in flow path inertness.



Description	Unit	Part #
TM1200 Canister Sampling Timer	EA	39-TM1200
TM1200S Silonite™ coated Canister Sampling Valve	EA	39-TM1200S

## TM1050 Remote Start/Stop System

The TM1050 enables start/stop canister fill operations with a direct wire connection from up to 500 feet away. The TM1050's wire connection allows remote sampling events to be accurately captured within confined spaces, or in hazardous environments. Examples include manhole/sewer sampling, collection of gases near a planned release, and collection of combustion/explosion products from a safe distance. The TM1050 is powered by a simple 9V battery using a "latching" valve that requires very little power. Each 9V battery can power in excess of 100 on/off operations for reliable sample collection over extended time periods.



The TM1050S Remote Start/Stop System  
PN 39-TM1050S

Description	Unit	Part #
TM1050 Remote Start/Stop System*	EA	39-TM1050
TM1050S Silonite™ coated Remote Start/Stop System*	EA	39-TM1050S
100' Extended Remote Cable	EA	39-TM1050-C2
500' Extended Remote Cable	EA	39-TM1050-C3
6L Silonite™ Canister (w/ TrueSeal™ Valve)	EA	29-10622
Silonite™ Filtered Grab Sampler (No Restrictor)	EA	39-RS-0

\* TM1050 system includes a Remote Control Unit, Start/Stop Valve Assembly, and a 20' remote cable. Order PN 39-TM1050S for Silonite™ coated Start/Stop Valve Assembly.