





The miniGC from Lucidity is the smallest, easiest to use, lowest cost, fully functional Gas Chromatograph (GC) available. Through revolutionary design and patented technology, Lucidity has created a GC that gives comparable results to the traditional, larger, more expensive GCs, but in a much smaller, much easier to use, and much more affordable package, allowing organizations to deploy GC technology in many more places than they ever could before. The miniGC is changing where GC is used, who is using it, and how many systems an organization can obtain.



A fraction of the price of the conventional GCs.



The easiest to use GC on the market.



Self-installable in 15 minutes.

Features

Shoebbox Size: The miniGC has, by far, the smallest footprint of any fully functional GC out there. It takes up a shoebbox-sized space on the bench and is approximately twice the height of a shoebbox. Add the autosampler to the top and still have room for the column holder to aid in simple column swaps. This makes the system ideal for putting in multiple locations and makes it simple to move and reinstall as needed.

Rapid Oven Heating & Cooling: With the smallest oven of any fully functional GC on the market, the miniGC can ramp all the way to 400 °C at 60 °C per minute and can cool from 400 °C to 50 °C in 5 minutes. This means it heats faster and cools faster than any of the traditional GCs. The benefit? Much faster analysis times and less down time between runs.

High Temperature Oven: The oven is the heart of the GC; its small size and robust heating capability enable a large GC performance within a small package. The oven can be programmed up to 400 °C, making the miniGC capable of handling difficult applications and very nonvolatile compounds.

Split/Splitless Injection Port: The injection port is another key feature that distinguishes the miniGC. With its sophisticated flow controllers and refined, inert flow path, it is capable of operating in any of the split or splitless modes, to which users of more complicated GC systems are accustomed, and makes it capable of handling both very concentrated and very dilute samples.

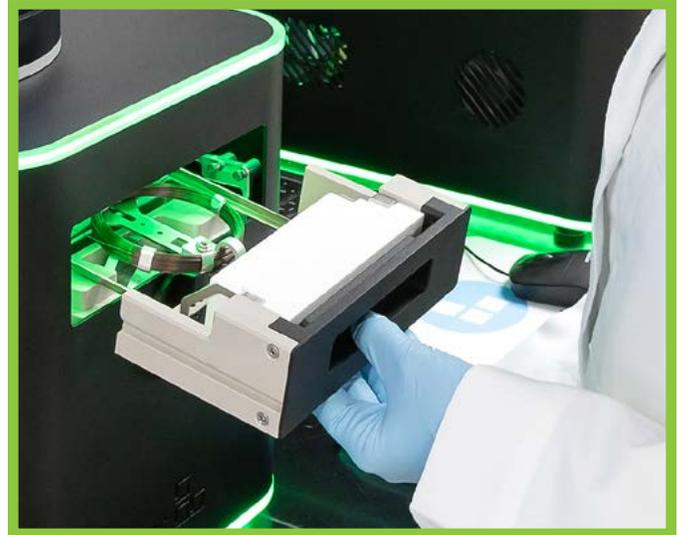
Removable Column Cartridges: One of the biggest complaints about other GC systems is installing and removing columns. The miniGC allows you to install and remove standard GC columns as easily as you can put a video game cartridge into a gaming console, it couldn't be simpler. No more small leaks or incorrect positioning of the column ends resulting in poor chromatography.

Powerful, User-Friendly Interface: We have custom designed our user interface with ease of use in mind. Our goal has always been to create an extremely powerful interface allowing full functionality while also being extremely easy to navigate with no training required. If it requires a manual to use, it's probably too complicated.

Ease of Installation & Training: Between training videos, intuitive helpful software, the Check Standard Kit, and the size of the system, the miniGC is incredibly easy to install and can be fully functional and running samples in 15 minutes.

Removable Column Cartridges

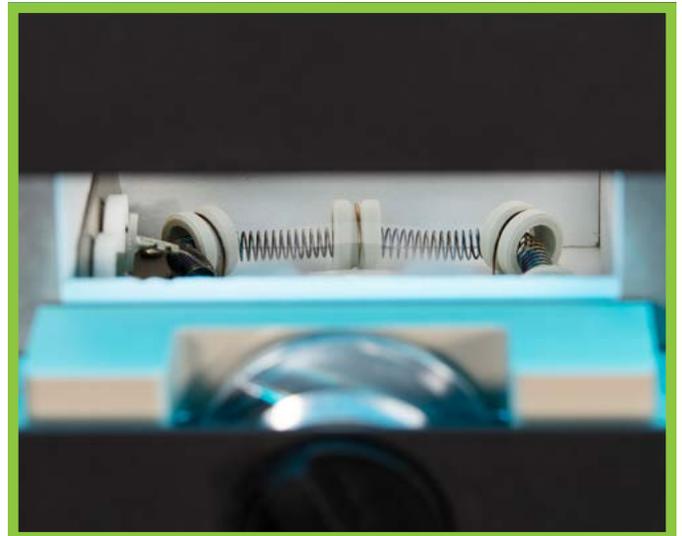
Changing columns is as simple as loading a gaming cartridge. Preloaded cartridges with standard metal capillary columns are available, or use your own. Any conventional metal capillary chromatography columns can be installed into our column holders and then the columns can be changed as easily as video game cartridges into a gaming console. The miniGC also keeps track of which runs utilize which columns and warns users if they attempt to run the wrong method/column combination.



Rapid Heating / Cooling Oven

We have created an oven that is a fraction of the size of traditional GC ovens, allowing for much faster heating rates and much faster cooling rates. These faster heating and cooling rates enable faster runs and much less down time between runs. The miniGC is completely programmable from 40 °C to 400 °C, with a heating rate up to 60 °C/minute. Cooling from 400 °C to 50 °C takes only 5 minutes.

No oven gloves required! The unique oven design, coupled with simple column cartridge allows users to easily swap and securely seal columns. No more tightening nuts and ferrules inside the oven.



Interface

The miniGC software is the most intuitive GC software available. It is based on modern consumer electronics interfaces that require no user guides because their operation is so intuitive. At the same time, it also gives the user control of all the same parameters you would expect in any GC run. Enhanced simplicity without compromising capability.

The home screen is only one click away and allows you to go directly into a run, access methods, access results, or access and change any parameters through the live dashboard. This same live dashboard follows you through the software so you can always see the status of the system.



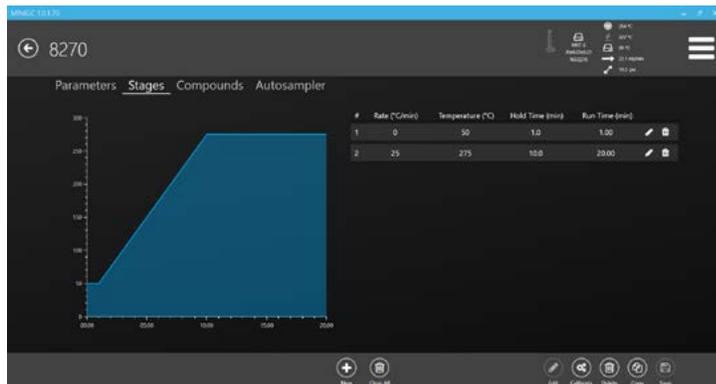
Upon entering the run screen, you are able to create a sequence or set up a single sample. After choosing a run name and a method, the user sees the status of the run parameters as they approach the method starting set-points. Once the set-points have been reached, the user can start the run.



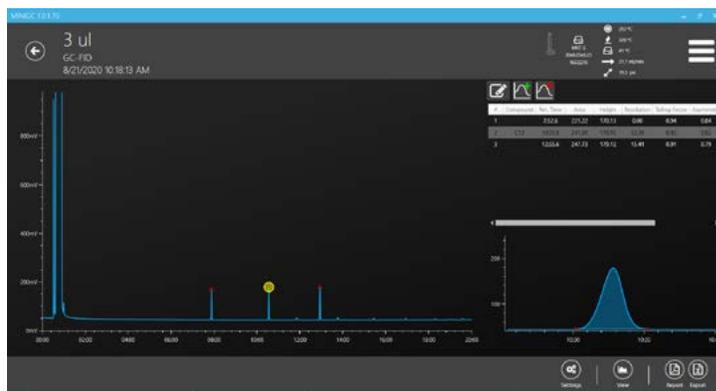
Once the run has begun, automatically view the chromatogram in real time as well as the method proceeding in real time in a clutter-free and easy-to-understand graphical layout.



The user can also go into the method library where they can access different methods, organize them into folders, edit them, delete them, or create new methods. Method creation and editing is very straightforward so even those new to chromatography can create methods. Easily import and export methods across multiple miniGC systems.



The results viewer allows users to view all the different results, organize them into folders, view them one at a time, or view multiple results overlaid. The software auto-identifies peaks and integrates them, giving a list of peaks with areas, heights, and more. The software will also match compounds with these peaks based on retention times. Results can be imported or exported and overlaid with any other results on any other system. Automatically generate your report based on these results and you are done.



Simple yet powerful, that's the driving force behind the miniGC's software. The miniGC comes with a laptop loaded with software that communicates via an Ethernet cable. The software and all future upgrades are free and open source to anyone to facilitate seamless integration with any LIMS system. In addition, all of the data can be exported as a CSV file for external data viewing and analysis. Watch the software demo videos on our website to see the software in action: luciditysystems.com/products/minigc/minigc-interface

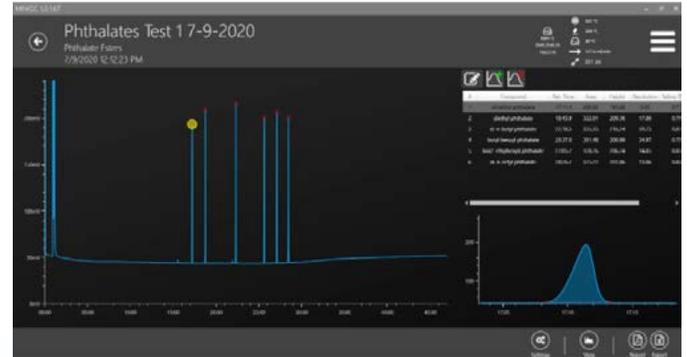


Results

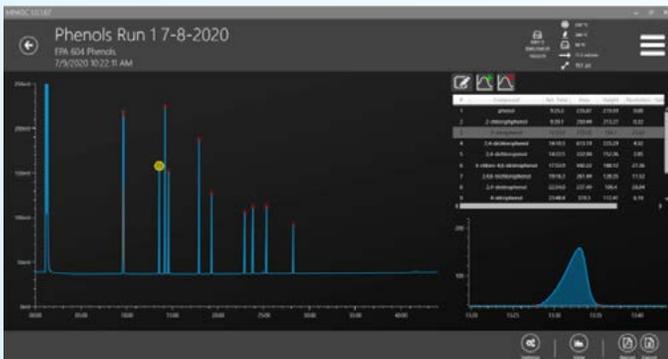
Seeing is believing. Although the miniGC is small, affordable, and easy-to-use, its results are comparable to larger, more expensive conventional GCs. These results were generated in miniGCs using the same methods and samples as conventional GCs and the chromatograms are indistinguishable.



Terpenes



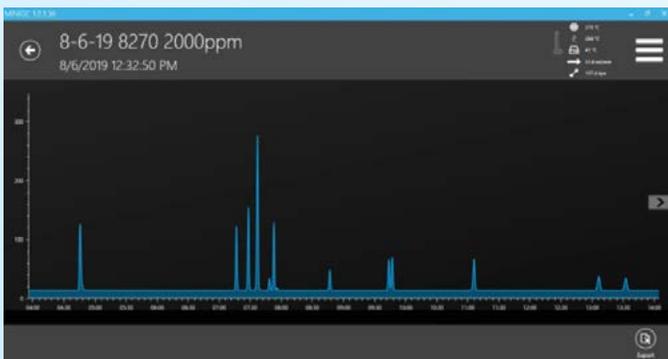
Phthalates



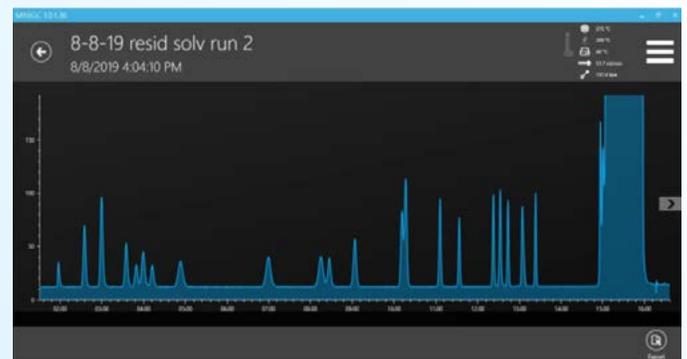
Phenols



C7-C40 Saturated Alkanes



Semivolatiles



Residual Solvents

For more results and to see the conventional results and methods visit: luciditysystems.com/products/minigc/minigc-results

Accessories

The miniGC comes with an Accessory Kit that includes everything you need to start running samples, including a column, laptop with software, the Check Standard, and tools and supplies to keep you running.



Need throughput or just more “hands” in the lab? Add the miniGC Autosampler with its simple magnetic attachment points to the top of the miniGC. The 16 position turntable with liquid sampling will test your samples automatically. Other types of autosamplers can be connected as well.



Organize your lab with the Column Storage Rack that allows users to store columns that are not in use in a convenient rack that saves space and seals the ends of the columns to prevent contamination.



Check Standard Kit

The Check Standard Kit is included with every miniGC. The Check Standard is run 3 times in every miniGC before it ships and the results are saved. When a user receives their miniGC they can run the Check Standard at any time and overlay the result on the 3 runs performed at checkout to ensure the miniGC is performing as expected.

The training videos show live runs of us running the Check Standard so you can follow along and do the same. We encourage each user to run the Check Standard as the first run upon setup so they can familiarize themselves with system and perform a check to ensure the system is ready for operation.

At any point after installation, if a user is concerned about the proper operation of the system, the Check Standard is a reliable and simple way to diagnose any issues. Simply send us the results for a quick diagnosis.



Easy Installation

The miniGC arrives in small box and contains everything you need to run samples, minus the needed gasses. Before the system arrives you receive an Installation Guide with pictures guiding you step by step through unpacking the system and setting it up. Once you have turned on the laptop that comes with the system, you will see a series of 3-5 minute videos that take you through installation and operation of the system and software.

The miniGC system can be set up and running samples in 15 minutes, if you have your gas connections ready. Built around simplicity, installation is as simple as its operation. Because of the size and weight of the system, its small power requirements, the intuitive interface, and the use of training videos and installation guides, we were able to make the miniGC extremely simple to deploy anywhere testing needs to be done.



Why the miniGC is the Best Choice

With the size, cost, and ease of use of the miniGC you can deploy many more GCs in your organization than you were previously able to. You can place them in more locations closer to where the analysis needs to be done, and you can put them in the hands of people who are less experienced. The results from these systems can be compared to conventional GCs so they can fit right in with the larger, more expensive GCs you might have and they can match the chromatograms and results you are used to seeing. If you were previously unable to justify buying a GC, now one is in reach. If you were limited in where you could place them in your organization because of budget or lack of trained personnel, now you're not. If you were previously buying used equipment because of budget concerns, now you can buy new.

We are not changing the way gas chromatography is done, we are simply making it much easier and much more affordable to do.



Specifications

- Power: 100-260V, 50-60Hz input power
- Injection Port: 2 Zone programmable temps, Split, Splitless
- FID Detector, ~100ppb detection limit
- Column: Compatible with any commercially available metal capillary columns up to 60m in length and with any ID and film thickness
- Column Oven: 60 °C/min heating from 40 °C to 400 °C, cools from 400 °C to 50 °C in 5 minutes
- Weight: 35 lbs (16 kg)
- Footprint: 10.5" (27 cm) wide x 11.5" (29 cm) tall x 18" (46 cm) long
- Uses standard GC inlet liners and GC injection port septa
- Includes external Windows based applications software and laptop



For more information on who we are and what we do please visit luciditysystems.com