



CUSTOM GC AUTOSAMPLER

WE HAVE THE AUTOSAMPLER TO FIT YOUR NEEDS

EXPLORE HOW HTA'S CUSTOM GC AUTOSAMPLERS CAN MEET YOUR LABORATORY'S UNIQUE NEEDS

HTA's GC autosampler offering is the **widest and the most complete in the market**: we offer seven models to answer different needs in terms of injection techniques - standard liquid injection, headspace or solid-phase microextraction (SPME) - and sample capacities - from 15 to in excess of 200 samples.

Despite our wide range, **we recognize that laboratories occasionally have needs that do not find an answer in the standard autosampler models offered by HTA or their GC manufacturer**. In the past - when those special needs arose - laboratories were obliged to perform manual injections or to opt for expensive and complex all-in-ones autosamplers that - besides offering the required automation - include and charge for functionalities that are not needed. Now we offer you the final and most effective solution for your custom needs: a custom autosampler!



Transfer line

HTA's custom autosamplers offer **affordable pricing and the same level of robustness and reliability of a standard autosampler**. In fact, our autosampler platforms (2000, 3000, HT4000) have been designed to allow us flexibility in accommodating many different requests and customizations - both hardware and software - without any major effort. Furthermore, our LEAN production system - based on cellular manufacturing - allows us to generate product variety.

Learn below how we can customize

your autosampler.

HEAT, COOL OR VORTEX

Your GC autosampler can be customized to execute simple sample preparation tasks before the injection, according to your specific needs.

You may need to heat the sample to a certain temperature (for example, because it is a necessary condition for a chemical reaction). In this case, the **vial heater** module can be integrated into your autosampler: the sample is transferred into this module and the reaction can then take place.

Furthermore a **vortex station** can be included in your autosampler to perform effective mixing of samples and standards, to assist solubilization or to guarantee the representativeness of the injected sample.

The **whole sample rack can also be cooled** to preserve samples from thermal degradation and to avoid undesirable phase changes.

RUN YOUR OWN VESSELS

The sample vessel market standard for GC autosamplers is 2, 10 and 20ml vials. However, you may consider using non-conventional sample vessels to avoid **the high cost of sample reformatting**: reduce error, reduce cost and improve throughput!

We have great experience of using non-conventional sample vessels for special applications: contact us and inquire about custom racks. By equipping your autosampler with a **custom rack**, you will be able to run the sample vessels as they come from your production line or sample preparation process.

If the volume of your sample vessels is larger than standard, you may also need a higher solvent capacity and a consequently higher waste capacity. Also in this case we can meet your needs offering you a solution including

larger solvent and waste reservoirs.



Infinite waste & nozzle for large solvent requirement

FLOW CELL

Collect your sample directly from the line through the use of a flow cell.

You will then be able to inject your sample at timely intervals into your GC or GC-MS system. You may also consider collecting samples from the line, injecting part and storing the remainder in a vial as double in case further tests are needed.

SIMULTANEOUS INJECTION FOR SIMDIST & OTHER APPS

Like in a synchronized swimming duet, **our autosamplers can be used** - without modification - **to perform simultaneous injections**. You need to equip your GC with two autosamplers and to source a special mounting kit that allows for double-autosampler installation: you may use any combination of 3000A, 3100A or 3200A units. For extended throughput, each autosampler has its own sample rack: therefore, you are able to inject the same or a different sample at a given time. The two autosamplers will collect the sample, then wait for each other, before performing the injection at the same time in the two different inlets. No Data System modification is required.

Please note that due to GC mechanical constraints, the simultaneous injection mounting kit is only available for a limited range of GCs.

THE MOST POPULAR SOLUTIONS

AUTOSAMPLER WITH HEATING CAPABILITIES

The HTA autosampler with heating capability features a heated sample rack coupled with a heated syringe for precise sample temperature control. Independently adjustable temperatures allow you to **heat samples up to 60°C in the rack and 70°C in the syringe**, ensuring reliable injection and subsequent analysis of high molecular weight compounds. **Ideal for the petrochemical industry and other applications involving long-chain hydrocarbons that tend to solidify at room temperature, this system prevents sample solidification**, delivering accurate and consistent chromatographic results. This autosampler allows you to tackle applications that standard autosamplers cannot carry out efficiently.



EXETAINER® VIAL AUTOSAMPLER

The Exetainer® Vial autosampler features a **custom rack specifically designed for Exetainer® vials**, enabling direct sample injection from the Exetainer® vials into the GC.

Supporting a variety of **evacuated and non-evacuated vials in different volumes and colors**, it is ideal for clinical, pharmaceutical, and research applications.

This solution enhances **traceability, streamlines workflows, and minimizes sample reformatting costs**, offering a reliable and efficient solution for life science laboratories.



DYNAMIC HEADSPACE AUTOSAMPLER

Most regulated headspace applications rely on Static Headspace sampling. However, some specialized applications, such as those involving **Electronic Noses, Ion Mobility Spectrometers (IMs), and micro-GCs**, require **extremely high sensitivity for trace analysis**, making dynamic headspace sampling the optimal solution. For these special applications, HTA has developed Dynamic Headspace autosamplers.

Dynamic Headspace sampling involves continuously flushing the vial with an inert gas, sweeping volatiles into a trap or directly to the analyzer to achieve maximum sensitivity.

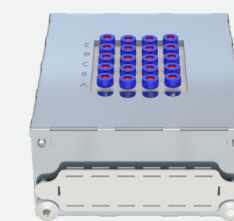
Discover the range of DHS solutions HTA can offer in the dedicated brochures.



COOLING MODULE FOR GC AUTOSAMPLER

Sample cooling is an uncommon requirement in GC applications. However, in some cases, it may be necessary, especially when working with **sensitive samples**. In such situations, cooling **preserves sample integrity and prevents deterioration or evaporation**.

For these scenarios, HTA GC autosamplers can be equipped with a **cooled rack**, ensuring stable and reliable low temperatures - unlike competing systems. It can also act as a **mini blast chiller**, rapidly lowering sample temperatures. The cooled rack can be integrated into the instrument at the time of purchase or added later as an optional accessory.



AUTOSAMPLER WITH VORTEX/ HEATER MODULE

HTA GC autosampler can be equipped with a **vortex/heater station**.

The vortex station ensures **effective mixing of samples and standards, promoting solubilization and preventing stratification**. This guarantees the representativeness of the injected sample, ensuring accurate and reliable results.

Additionally, the module can **heat samples to a specific temperature** when required by the sample preparation workflow.



Why you should refrain from buying complex all-in-ones autosampler platforms when a special functionality is required?

You don't want a Swiss Army knife when a good sharp blade is all you need, and vice versa. That's the general consensus of industry equipment experts.

Know Your Need. "Given the significant capital investment buying equipment now represents, you should only purchase what you truly need." Okay, so how do you know what you truly need? "First you need to know who you are, and possibly who you want to be", "When you are evaluating, don't just think about how can I do more of the same", "Really think HOW IT may make your whole operation easier, faster and more cost effective."

Evaluate All Your Options. In the end, this approach to

evaluation should enable you to articulate what you need, and more importantly, why you need it. That brings us back to the original premise: you don't want a Swiss Army knife when a good sharp blade is all you need, and vice versa. Buyers are advised to ask themselves, "Do I need everything this particular piece of equipment can do?" You're going to pay for all of those features, even if you don't need them. Sometimes a simple problem only requires a simple solution.

Buy HTA with confidence: our specialists will not oversell you; they will recommend the product that better fits your needs.

HTA Autosampler Manager (PC software for standard HTA Autosamplers) will not be available for the custom product unless otherwise stated. However, it may be available upon request, after payment of a specific fee.

Other software normally available for the standard product will not be available for the custom product unless otherwise stated. However, it may be available upon request, after payment of a specific fee.

The accessories that are typically available for the standard instrument may not be compatible with the custom instrument we are supplying. Nevertheless, they may be available upon request, after payment of an additional fee.



At HTA, we design and manufacture robotics solutions for the scientific community. With decades of expertise, we deliver reliable technologies tailored to modern laboratories. Our products for analytical chemistry include autosamplers and sample prep solutions, covering, among others, GC, LC, and ICP apps. We offer universal autosamplers compatible with analyzers from multiple brands, ensuring flexible lab workflows. HTA products are made in Italy under UNI EN ISO 9001:2015 and 13485:2016 certified quality systems.

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