



## HT3000A series

### LIQUID GC AUTOSAMPLERS

Offering reliability and superior performance for all GC-GC/MS applications, meeting the requirements of both today and tomorrow.

## KEY FEATURES:

- 50+ GC models supported
- 1 turret serves 2 injectors
- Extraordinary performance
- Touch screen powered
- Move freely between GCs



### HT3000A has been engineered for maximum performance and reliability.

The new system takes advantage of today's latest technology to deliver even greater reliability, performance and flexibility.

The **HT3000A** is the **most compact** autosampler on the market, with a near-to-zero requirement for bench space, while offering a **top-class sample capacity**. The **HT3000A** sample rack can be removed for sample loading or preparation, or for storage elsewhere.

The **HT3000A** is available in the standard version with 121 positions for 2ml vials. The top version **HT3200A** has 209 positions, while the entry-level version **HT3100A** has a 15 position

fixed rack.

**The system is fully self-contained and can be easily installed on all the GC and GC/MS systems available in the market, because of flexibility and modular configuration.** It can be configured to **serve up to two injectors** in most supported GCs.

**The rotating tower leaves the injector port free for manual injection or maintenance.** In addition to avoiding any complicated sample vial transfer procedures, this approach keeps the **samples away from any heated source**. In fact, the sample rack is mounted away from the GC oven to prevent exposure to high temperatures, which could cause degradation or condensation in

the sample vial.

The self-aligning "plug and play" **HT3000A** mounts in seconds, without tools. It can be easily moved between GCs when workloads change, due to its easy positioning, repositioning and easy removal.

**Easy to use:** Just load the samples and run the analysis with no extra downtime. The new **run-all-samples mode** makes the operation of sample processing even more simple and transparent.

HTA is the first to offer GC liquid autosamplers with a large, full-color **touch screen interface**, providing easier system accessibility and usability. The touch screen eliminates drilldown,

simplifying instrument control for both novices and experienced users.

The **HT3000A** is the **fastest liquid autosampler available** on the market: injection is performed in less than 100ms. Fast-injection technology ensures the best possible peak shape, while maximising the accuracy of your results.

The **greater solvent capacity** means longer unattended operations. The autosampler supports the use of six solvent vials of 10ml each, giving a total capacity of 60ml.

Furthermore, advantage can be taken of the **double wash step capability**: as pre- and post-wash solvent in addition to A,

B... F solvents you can also choose for a combination of A+B, A+C... F+E solvents for superior analytical performance (carry-over adverse!).

**HT3000A** handles the **most sophisticated sampling techniques**: internal standard technique (also known as sandwich injection), multi-phase, ambient headspace, priority injection, nanoliter injection and much more. Parameters are easily programmable to optimise both the most convenient sampling methods for both extremely volatile or viscous samples and the best injection technique. **Variable needle depths** allow you to samples to be taken from anywhere within the vial, thus performing extractions directly from the vial.

From small-volume injection to large-volume injection and multi-phase sampling, **HT3000A** can help to process samples more quickly and to access better data. It can also mount **different types of syringes**, with volumes from 0.5 to 100µl.

**HT3000A** offers **syringe illumination** to always keep the sample under control, in order to check against air bubbles in method validations.

The **HT3000A** can be also controlled by a PC using the **HTA Autosampler Manager** (please see the dedicated brochure). HTA Autosampler Manager software can run in standard mode or with full CFR 21 Part 11 compliance.

## HT3200A

Due to its 209 2mL sample vials, the **HT3200A** is setting a new standard in the market. Samples are organised in two racks that can be easily removed for sample loading or preparation, or to be stored elsewhere.

An **integrated Bar Code Reader**<sup>1</sup> can be available with every **HT3200A** unit, offering full and detailed sample tracking.

The **HT3200A** features the innovative **SyringeID**<sup>2</sup>, a proprietary technology based on RFID tags. The SyringeID is able to **identify syringes** in an univocal way, thereby preventing errors when mounting a syringe, preventing syringe volume mismatching and keeps track of the syringe consumption (preventive maintenance counters). The SyringeID system is able to provide you with a level of confidence never previously achieved by identification systems based on syringe carriers.



## HT3100A

Analysing fewer samples? Get precision and performance with a system that is perfectly sized for your needs. The **HT3100A** offers automation for processing up to 15 unattended samples.

Quick sets of autosampler parameters can be done by the free PC control (**HTA Autosampler Manager**), provided together with the **HT3100A**, while all the routine operations such as analysis start, sample loading and extra wash can be managed by its dedicated keypad.

With HT3100A free software "HTA Autosampler Manager (Standard Version)" is provided for PC control; upgrade to "HTA Autosampler Manager (CFR 21 Part 11 Version)" should be purchased separately. PC is required for setup, service, method and sequence editing.



	HT3100A	HT3000A	HT3200A
Sample Capacity	15 samples	121 samples (1 removable rack)	209 samples (2 removable racks)
User Interface	Keypad	Touch Screen	Touch Screen
Syringe Housing Illumination		✓	✓
SyringeID <sup>2</sup>			✓
BCR (Bar Code Reader) <sup>1</sup>			Optional
Software: HTA Autosampler Manager (Standard Version)	Included	Free trial (60 days)	Free trial (60 days)
Easy fixing/ Repositioning system	✓	✓	✓

## TECHNICAL SPECIFICATIONS

### General features

Syringe volume<sup>3</sup>: 0.5, 1, 5, 10, 25, 50 and 100µl  
Maintenance: preventive counters available  
Electrical control: LAN and TTL; optional: RS232  
Syringe area illumination: yes (programmable) for HT3000A/HT3200A

### Tray capacity

HT3000A<sup>4</sup>: 121 vials, 2ml (1 removable rack)  
HT3200A: 209 vials, 2ml (2 removable racks)  
HT3100A: 15 vials, 2ml

### Filling

Sample volume: as low as step of 0.1µl  
Air volume: as low as step of 0.1µl  
Filling speed: 1-100µl/sec  
Viscosity delay: 0-15s  
Bubble elimination: up to 15 pull up strokes

### Injection

Injection speed: 1-100µl/sec  
Injection depth: programmable  
Pre and post inj delay: 0-99s

### Washing

Type: pre-injection, sample, post-injection  
Solvent capacity: 6x10ml vials  
Mode: single or double wash

### Internal standard technique

IS volume: as low as step of 0.1µl  
Air gap volume: as low as step of 0.1µl  
Mode: 1 or 2 air gaps

### Physical features

Dimensions (WxHxD): 280x570x320mm  
Weight (HT3000A): 8.0kg  
Weight (HT3200A): 9.2kg  
Weight (HT3100A): 6.4kg  
Power supply: 100-240±10%Vac; 50-60Hz; 150VA

<sup>1</sup> Not compatible with Serial Port (RS232)

<sup>2</sup> Patented technology

<sup>3</sup> OEM and Custom versions with extended syringe range are available

<sup>4</sup> Custom trays are available

<sup>5</sup> Tray in closed position for HT3000A and HT3200A



When it comes to designing and manufacturing robotics solutions, there's no company more dedicated, experienced and knowledgeable in the scientific industry than HTA. We offer an extensive collection of analyzer front-ends and sample preparation workstations designed to fit applications in analytical chemistry, life sciences and clinical laboratories; this even includes GC, LC and ICP autosamplers. HTA manufactures in Italy under a certified UNI EN ISO 9001:2015 and 13485:2016 quality management systems.

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