



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 **touchscreen 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 sample 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**¹ can be available with every **HT3200A** unit, offering full and detailed sample tracking.

The **HT3200A** features the innovative **SyringeID**², 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 | | ✓ | ✓ |
| SyringelD ² | | | ✓ |
| BCR (Bar Code Reader) ¹ | | | 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 volume³: 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

HT3000A⁴: 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

¹ Not compatible with Serial Port (RS232)

² Patented technology

³ OEM and Custom versions with extended syringe range are available

⁴ Custom trays are available

⁵ Tray in closed position for HT3000A and HT3200A



Leading automation provider for the scientific instruments industry. HTA supplies a wide range of analyzer front-ends and sample preparation automated devices for analytical chemistry (chromatography), life sciences and clinical applications. Among its most popular products are the preparative workstations, GC and HPLC autosamplers that are commercialized worldwide through its reseller network. HTA's quality management system is certified UNI EN ISO 9001:2008.

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