# DYNAMIC HEADSPACE AUTOSAMPLERS

## 2010H AND 2110H

## KEY FEATURES:

- Robustness, reliability and sensitivity
- Easy to start and operate
- Accessible sample path for easy maintenance
- Two models available to better match your needs

## ROBUST, RELIABLE AND SENSITIVE

The **2010H** series combine the **robustness and reliability** that have always distinguished HTA autosamplers, with the **sensitivity** of the dynamic headspace sampling (DHS).

HTA dynamic headspace autosamplers are typically associated with **electronic noses**, Ion Mobility spectrometers (**IMSs**) or **micro-GCs**, for which assure an **actual walk-away automation**.

## OPERATIONS: HOW IT WORKS

The robotic vial processing operation allows for sample analysis in a straightforward and systematic way. The sample vial is transported from the rack into the heated oven, where the **sample is simultaneously heated and shaken** to facilitate the state change and to reach equilibrium. After a defined time, when the analyser is ready, the **double-needle set** is inserted into the vial. The headspace is continuously swept with an inert sample gas that is routed through the appointed analyzer by the dedicated transfer line.

After the preset sampling time, the autosampler removes the needle pair from the sample vial, that is subsequently brought back to its original position in the rack.

The autosampler is able to **anticipate sample preparation to improve the laboratory throughput**. In fact, in case the combination of the analysis time, the incubation time in the autosampler oven and the sampling time within the vial will allow it, the autosampler will take automatically care to load the next sample vials in the oven, to start the incubation of the subsequent vials during the analysis of the previous one.

## EASY TO START, OPERATE AND MAINTAIN

**Easy to start and operate**. According to

the model, the **2010H** series is equipped with a **high-quality touchscreen** that provides the best system accessibility and usability or, as alternative, with a **convenient start-stop keypad** for a quick single-button approach. Both the touch screen and the keypad are designed to **extremely simplify instrument control** for novices and experienced users.

**2010H** series can be also controlled by a PC with optional **HTA Autosampler Manager software**, available in standard or CFR 21 Part 11 version (see the dedicated brochure for additional information). The HTA Autosampler Manager enables **convenient method development**: progressive tests can be executed so that successive samples receive incremental changes in method parameter setpoints for time and temperature.

**Easy to maintain. Sample path** can be easily accessed allowing for **trouble-free maintenance.**

## CHOOSE THE VERSION THAT BETTER MATCHES YOUR NEEDS

The HTA dynamic headspace autosamplers are available in two main versions. The **2010H** model includes **42 positions for 6/10/20ml vials**, representing the ideal solution for standard and even high throughput laboratories. The **heated oven accommodates 6 samples simultaneously**, allowing to maximise the sample overlap for the highest productivity.

The second available solution is the **2110H** model, that is the best fit for labs running small batches of samples. The **2110H** offers automated processing of up to 14 samples, with the vials lifted individually into the heating zone for agitation and conditioning.

*Vial loading in the oven*

*Vial heating and shaking*

*Sampling*

*Vial unloading after sampling*

## TECHNICAL SPECIFICATIONS

**General features**

| | |
|---|---|
| Maintenance: | preventive counters;<br>predictive maintenance functionalities by AI |
| Electrical control: | LAN and TTL |
| Target illumination: | Yes |

**Tray capacity**

| | |
|---|---|
| 2110H: | 14 vials (20ml); optional: 10ml |
| 2010H: | 42 vials (20ml); optional: 6 and 10ml<br>(1 removable rack) |

**Conditioning**

| | |
|---|---|
| Oven positions: | 1 (2110H)<br>6 (2010H) |
| Oven temperature: | off; 28-150°C (2110H)<br>off; 28-170°C (2010H) |
| Shaking method: | sussultatory (2110H)<br>orbital (2010H) |
| Shaker speed: | from very low to very high |
| Shaking cycles: | on/off 0-9.9min<br>0-999min |
| Incubation time: | |

**Sampling**

| | |
|---|---|
| DHS time: | 0-60min |

**Transfer Line**

Room Temperature

**Physical features**

| | |
|---|---|
| Dimensions (WxHxD): | 280x640x320mm (2110H)<br>330x640x320mm (2010H)[1] |
| Weight: | 8.0kg (2110H)<br>10.0kg (2010H) |
| Power supply: | 100-240±10%Vac; 50-60Hz;<br>60W (2110H)<br>120W (2010H) |

**Software**

| | |
|---|---|
| HTA Monitor: | included for free<br>virtual Touch Screen and AI functionalities |
| HTA Autosampler Manager: | 60-days free trial<br>full autosampler PC programming |

**HTA Monitor PC requirements**

Software:
- Microsoft Windows 7, Windows 8.1, Windows 10, Windows 11 PC Edition only (excluding mobile devices and appliances)
- PC is expected to run Windows OS with the latest update installed (unless differently specified)
- Additional required software: Microsoft .NET Framework 4.5.2
- Administrator account for software installation only

Hardware:
- RAM: 2GB
- Disk space (for installation): 6GB
- LAN port
- 1024x768 Minimum
- Some functionalities require Internet access

[1] Tray and oven cover in closed position

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Some functionalities require the usage of HTA software:
- progressive mode and CFR 21 Part 11 require HTA Autosampler Manager
- some AI functionalities require HTA Monitor

It is not required to have HTA Monitor and CDS on the same PC.
The PC is required for setup, service and programming 2110H.

**HTA s.r.l.**

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