

**GERSTEL**

Dynamic Head Space

DHS

Specifications

Uses

The GERSTEL DHS system is used to efficiently extract and concentrate VOCs from liquid or solid samples placed in standard Headspace vials prior to GC or GC/MS analysis. The DHS station provides thermostating and agitation as well as purging of the sample headspace with a controlled flow of inert gas.

System Configuration

- compatible with most standard GCs
- automated operation based on the GERSTEL Multi-Purpose Sampler MPS
- GERSTEL Thermal Desorption Unit TDU is used for thermal desorption of analytes
- GERSTEL Cooled Injection System CIS is used for analyte focusing prior to GC or GC/MS analysis

Sample Volume

- max. 10 mL, in 20 mL headspace vials

Adsorbent Tubes

- standard GERSTEL TDU tubes
- detailed information on TDU tubes and adsorbent materials is available in a separate flyer

Analyte Transfer

- using a needle, between the Headspace vial and TDU tube, similar to standard headspace technique
- no transfer line in system

Cooling Option

- peltier cooling UPC

Incubation Temperature

- 30 ... 200 °C
- 10 ... 200 °C with Universal Peltier Cooling UPC

Trap Temperature

- 20 ... 70 °C

Transfer Temperature

- max. 150 °C

Agitation Speed

- 250 ... 1500 rpm

Gases

- He
- N₂
- synthetic air

Gas Purge Volume

- max. 100 liters

Gas Flow

- 5 ... 100 mL/min
- controlled by a mass flow controller



Control

- based on Controller C506
- in combination with the GERSTEL MAESTRO software, alternatively integrated in an Agilent® Technologies chromatography data system, or coupled to a chromatography data system from AB Sciex™ or Thermo Scientific®, or operated in stand-alone mode
- only one method and one sequence table required for the complete system including GC/MS when integrated in the ChemStation software

Dimensions (H × W × D)

- 27.5 × 7.5 × 27.5 cm

Weight

- 2.6 kg

Operating Conditions

- 20 ... 35 °C
- relative humidity max. 50-60%, non-condensing
- max. 4615 m above sea level

Storage Conditions

- 5 ... 40 °C
- relative humidity max. 50-60%, non-condensing
- max. 4615 m above sea level

DHS Large Option

The DHS Large Option enables the determination of volatile analytes from solid samples with a volume of up to 1 liter. It can be easily retrofitted at every DHS station.

Characteristic Features

- especially suitable for large-volume, solid samples
- maximum sample volume of 1 liter
- maximum sample weight of 2 kg
- DHS FlowLog option at gas outlet to check and log the tightness of the system
- comfortable switching between DHS and DHS Large operation
- software-controlled locking mechanism locks the carriage in the appropriate position
- manual sample exchange
- temperature range: AT ... 200 °C
- no upgrade to DHS Large Autosampler possible



Sample Vessel with Cover

- 15.3 × 10.4 cm (H × Ø)
- Vessel volumes of 1 L, 500 mL, 250 mL and 125 mL
- Produced from stainless steel, deactivated
- Viton® sealing ring
- Safety valve limits the inner pressure to 2.3 bar

Power Consumption

- 300 Watt

Power Supply

- 230 VAC, 50/60 Hz or
- 115 VAC, 50/60 Hz or
- 100 VAC, 50/60 Hz