



Eclipse 4760

PURGE & TRAP SAMPLE CONCENTRATOR

Optimized for Superior Analytical Performance



Thousands of laboratories trust the Eclipse series Purge & Trap Sample Concentrator for GC/GC-MS analysis of volatile organic compounds (VOCs). The Eclipse 4760 sets a new standard in ease-of-use and economy of effort for these analyses. An updated slim-line design, intuitive user interface and industry leading performance are combined with key Eclipse features developed with over 30 years of VOC experience. Faster cycle times, higher sample throughput, and exceptional reliability directly improve productivity and profitability.

The purge & trap technique involves multiple sample processing steps, each of which directly affect analytical performance. Innovative, patented components in the Eclipse 4760 improve instrument operation, reliability and analytical performance.

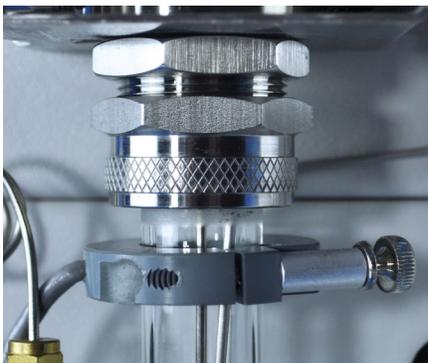
Spurge Overfill Sensor

This optional sensor ensures the spurge vessel has properly drained before a new sample is introduced.



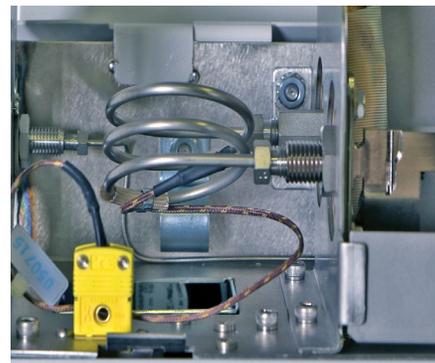
Foam Sensor

The purge vessel can be equipped with an optional, noninvasive optical sensor to prevent contamination from foaming samples and system downtime.



Direct Trap Heating

Direct resistance heating of the trap at $>1,000$ °C/min eliminates the need for a trap preheating step and decreases overall purge and trap cycle time.



4100 Water/Soil Sample Processor

The 4100 Water/Soil Sample Processor processes up to 100 drinking water, wastewater, or soil samples and can operate with up to two Eclipse 4760 Purge and Trap Systems, greatly increasing sample throughput.

The 4100 is equipped with an innovative, pneumatically-actuated cylindrical vial gripper. The mechanism lifts and transports VOA vials to and from the sampling system with exceptional reliability.



4551A Autosampler

The 4551A Autosampler docks directly underneath the Eclipse 4760 and enables unattended automated analysis of 51 water samples. The 4551A can be equipped with options for cooling sample vials and adding internal standards to ensure compliance with quality control requirements in USEPA methods. The optional LV-20 Standards Addition Module is equipped with high-speed injection valves that minimize standard usage and help decrease laboratory operating costs for expensive standards.

Water Management System

The Cyclone Water Management system removes >96% of trapped water during the thermal desorb step, minimizing the transfer of water to the GC column.



Intuitive Software

The simplified user-interface provides easier navigation, while the integrated, multi-colored LED enables users to see the system's status at a glance.



Infra-Sparge Sample Heater

The Infra-Sparge option heats the purge vessel to improve the purge efficiency of hydrophilic and oxygenated compounds as recommended in USEPA method 524.3.



Eclipse 4760 SPECIFICATIONS

Dimensions	19.25 in H x 7.25 in W x 18 in D (48.9 cm H x 18.4 cm W x 45.7 cm D)
Weight	36 lbs (16.3 kg)
Sparge Vessel	5 mL (standard); 10 mL and 25 mL (optional)
Trap	3.175 mm O.D. x 2.227 mm I.D. (0.125 in O.D. x 0.105 in I.D.)
Trap Heating	Direct resistance heating
Trap Temperature	Programmable - Ambient to 450 °C
Trap Cooling	> 240 °C/minute cooling rate (200 °C to 30 °C in < 50 seconds); Cool down to ambient temperature + 1 °C
Water Management	Eliminates > 96% of trapped water, maximum temperature 240 °C; Cools to ambient temperature + 1 °C
Sample Transfer Line	1/16 in x 48 in standard (60 in optional)
Sample Transfer Line Temperature	Programmable ambient to 325 °C
Standards Injection	LV-20 Standards Addition Module
Autosamplers (Optional)	Model 4551A or Model 4100
Operating system	Windows® 10, 11
Communications	USB to RS-485 adapter cable
Gas Requirements	UHP He or N ₂
Power Requirements	115 VAC ± 10% 50/60 Hz 230 VAC ± 10% 50/60Hz 750 VA maximum
Certifications	Safety: Low Voltage Directive 2006/95/EC, EN 61010-1:2010 3rd Ed. EMC: Directive 2004/108/EC, EN 61326-1:2013 RoHS: Directive 2011/65/EU

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