Specification

EZ Flash II Specification

	Specification	Benefit
Column Heating		
Ramp Rate	Up to 1200˚C per minute	Productivity
Temp Range - 5m column	Ambient - 365˚C	Complete analysis
Temp Range - 10m column	Ambient - 280˚C	Complete analysis
Cool Down Time	In seconds	Fast cycle times/productivity
EZ Flash Columns	5m using conventional Fused Silica Open Tubular (FSOT) material, from 0.53 to 0.10mm ID, fits in GC oven. 10m using conventional Fused Silica Open Tubular (FSOT) material, from 0.32 to 0.10mm ID, fits in GC oven.	Versatility
Net Weight	approx 32 lbs	Sturdy
Environmental Operating	Ambient to 40˚C	Standard lab environment
Interface Heating		
Injector Interface Range	Ambient - 380˚C	Complete analysis
Detector Interface Range	Ambient - 380˚C	Complete analysis
Dimensions, inches (H x W x D)	15 x 7 x 15 (control Module)	Saves bench space
Method Storage	Up to 5 methods with unlimited number of steps	Flexibility
Communication to GC	Electronic handshake for Ready/Start	Easy Operation
Agency Approvals	CE, FCC, TUV	Worldwide acceptance
Power	110/220 VAC, 50/60Hz, 20/10 amps Autoswitching	Worldwide acceptance

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EZ Flash II

Fast GC Accessory

Get 10 -20 times more productivity from you existing GC. Operation is simple, and EZ Flash is fully compatible with most GC models plus a wide range of applications.

Technology

The ***Ez Flash II fast GC accessory allows your GC to be upgraded to a fast GC***. This upgrade uses most of the GC's current components such as the injector, detector, and data system. It simply speeds up the chromatographic separation to fast pin-point chromatography. This allows continuity of data and lab processes while reducing time and costs - resulting in painless integration and very rapid investment returns.

The Ez Flash II unit controls the analytical column temperature through a patented resistive heating technique. Modern capillary column technology allows very rapid heating and cooling, which permits the column to be heated at rates up to 1200˚C per minute. A standard GC capillary is placed inside a thin walled metal tube. The tube is then electrically heated and its resistance measured every 10 milliseconds to achieve accurate column temperature control along the whole capillary length.

In a traditional Gas Chromatograph, analytes migrate through the column for the whole analysis duration. Capillary systems often use a cool oven start temperature to ensure that low boiling components can be sufficiently retained to achieve separation from the solvent front and other components.

High boiling components require a higher over temperature to ensure correct and timely elution.

The clear drawback of traditional GC is that most of the GC time is spent in starting at a low temperature, and then heating up the oven to facilitate correct elution of high boiling components. This is followed by cooling down the oven to start the next run and correctly elute the low boiling components. The elongated elution times in these capillary runs allow peak diffusion to occur which compromises column resolution.

The EZ Flash Column can begin at low temperatures ensuring that low boiling components are separated and then ramp rapidly (***up to 1200˚C per minute***) to achieve complete separation in a fraction of the time taken by a normal GC. In addition, only a small amount of heat is released into the GC oven during analysis, making EZ Flash column cool down almost instantaneous.

Compared to a conventional GC, peak widths achieved using Ez Flash are greatly reduced due to the rapid elution of the components. The maintenance of peak resolution provides increased signal to noise ratios leading to better detection limits.

Features & Benefits

Now Your Existing GC can run 10-20 times faster - with the EZ Flash II Fast GC Accessory. Quick and simple to install, EZ Flash is a "plug-and-play" solution that heats columns at up to 1200˚C per minute, enabling you to run analyses at unprecedented speeds.

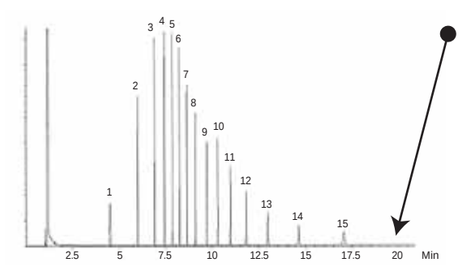
Feature	Benefit
Temperature ramps up to 1200˚C/min	Fast analysis / increased productivity
Cool down rates in seconds	Short cycle times / increased productivity
Simple user operation	Reduced Operator error
Range of interface kits	Multifaceted compatibility
Re-designed interface	Improved reliability
- Uses standard ferrules	Leak free column connections
- Direct electrical contact	Reproducibility

Sample Analysis

Extractable Total Petroleum Hydrocarbon (ETPH) ENVIRO - 131

ETPH standard mix is used in methods for contamination of water and soil. Conventional analysis can take 20 minutes or more, with EZ Flash II analysis is done in less than 6 minutes

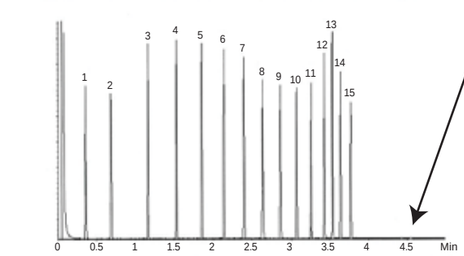
Conventional Analysis: Run time in 21 minutes using a conventional GC



Run Time In:
21 Minutes
using a Conventional GC

Conventional Analysis in 21 Minutes	
Column:	ZB5, 30m 0.25mm, 0.25um
Carrier Gas:	Helium 25 ml/min
Detector:	FID @ 310˚C
Injector:	290˚C
Temp Program:	60˚C (hold for 5 minutes) @ 80˚C/min up to 80˚C (hold 2 minutes) @ 80˚C/min up to 300˚C (hold 11 minutes)
GC:	HP 6890 GC

EZ Flash II Analysis: Run time in 5 minutes 40 seconds using the EZ Flash II



Run Time In:
Under 6 Minutes !
using the *EZ Flash II*

EZ Flash II Analysis in ***under 6 minutes***	
Column:	DB-5ms 5m, o.25 mm ID. 0.25 um
Carrier Gas:	Helium 15 psi
Detector:	FID @ 330˚C
Injector:	310˚C
Temp Program:	0 sec 40˚C 30 sec 45˚C 210 sec 310˚C 340 sec 320˚C
GC:	EZ Flash II installed in HP 5890 GC