

# TDflash

## MAIN FEATURES

- State of the art technology and compact design
- Ultra volatile compound compatible
- Excellent recovery
- Well resolved peaks
- No memory effect
- Low maintenance

## MAIN APPLICATIONS

- **Pharmaceutical :**  
Analysis of residual solvents in commercial drugs
- **Environment:**  
Ambient air monitoring (VOC),
- **Cosmetics :** complex flavour assembly analysis
- **Car Industry:**  
Inside car synthetic materials desorbing analysis
- **Sample concentration:**  
Trace level analysis made possible only through a concentration step



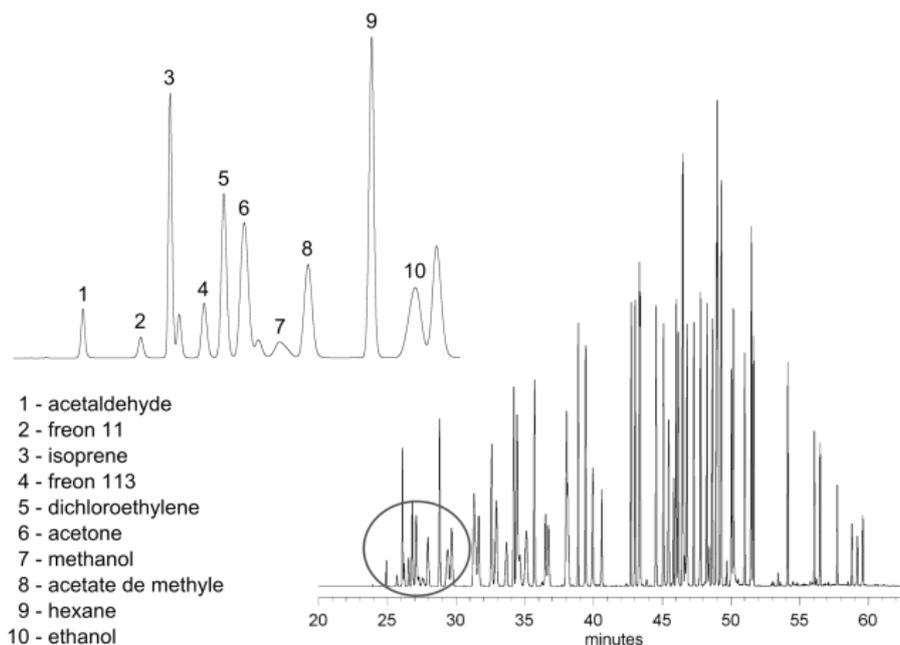
Developed and manufactured by AlyXan™, the new preconcentrating system is dedicated to the Gas Chromatography (GC) technology. It allows thermal desorption of compounds previously trapped on an absorbing tube. These compounds are then injected on the GC column..

TDflash™ is the perfect companion of many GC systems available on the market, fitted with different types of detectors, i.e. Mass Spectrometer detector. Easy to install and robust, TDflash™ is set up directly on the GC instead of the standard injector port, therefore eliminating all types of transfer line between the desorption step and the GC column.

TDflash™ capabilities rank from light compounds such as Butane or Freons up to heavier molecules like Phenol or Naphthalene. TDflash™ was thought and designed as a user friendly instrument. The instrument use and control can be fully automated thanks to a touch screen computer based operation. The TDflash™ trapping process does not use any absorbing material in the concentrating tube; the process is exclusively based on a cryogenic adsorption. That yields to thinner and better resolved peaks. Desorption time can be adjusted, and reduced, by increasing the desorption flow.

TDflash has already been recognized as an excellent product, not only because of its concentration performance, but also because there is no cross contamination, or memory effect. (no COV signal on a second analysis of a given tube, and a recovery rate close to 100%).

## Example: analysis of Volatile Organic Compounds



The sample is made of 66 different pure liquid compounds mixed together and then injected in a Tedlar type sample bag previously filled with air. 100 mL of this air sample "loaded" with 66 compounds are flown through an absorbing tube. This tube is then desorbed and a GC/MS analysis is performed. The mass range of these compounds goes from 32 to 212 uma (from methanol to pentadecane). Respectives concentrations are close to 500ppb.

*Experimental conditions : Desorption temperature = 240°C, desorption duration = 20min, trapping temperature = -160°C, event flow = 10mL/min, Helium pressure = 200kPa.*

### Technical specifications

Absorbing tubes	Glass 160 mm x 6 mm OD, filled with Tenax® TA 60/80
Detection limit	100 ppt
Desorption oven	Aluminum, 50°C/min, 260°C max
Cryogenic trap	Deactivated fused silica capillary tube 0.53 mm, 2000°C/min, 260°C max
Cooling	Liquid Nitrogen, down to -190°C
Temperature stability	+/- 1°C
Desorption flow	1 – 20 mL/min
Interface	Touch screen
Power	230VAC/50Hz
Maximum load	0.5kW
Control box dimensions (L x D x H)	290 x 300 x 270 mm
Control box weight	5.2 kg
Injector dimensions (L x D x H)	160 x 150 x 520 mm
Injector weight	5.1 kg