

The AutoDesorb System

The AutoDesorb System uses the SIS patented “Short Path™ Thermal Desorption” technology. This “short path” provides for the highest sensitivity of analysis. The Short Path Thermal Desorption technique enables the analysis of a wide diversity of samples via several thermal desorption sampling techniques. Both the Purge & Trap technique and Direct Thermal Extraction technique can be used for the analysis of volatile as well as semi-volatile organics.

The Short Path Thermal Desorption Technology provides several unique advantages over other desorption systems:

First: It enables the sample, which is trapped on an adsorbent media contained in a glass lined stainless steel tube (GLT desorption tube), to be subjected to rapid (ballistic) heating. The AutoDesorb System can desorb samples at temperatures up to 450° C and at ramp rates up to 100° C. Desorption times and other timers can be set from 1 second to 99 minutes. Multi-step desorption heater ramping with hold times can also be programmed

Second: The desorbed component can be easily and efficiently transferred into the injection port of the gas chromatograph from a glass lined stainless steel sample tube and its associated injection needle. This provides for a short transfer path for the sample in an inert environment to minimize the degradation of labile sample components which often decompose upon contact with the hot catalytic metal wall surfaces of the transfer path of other systems.

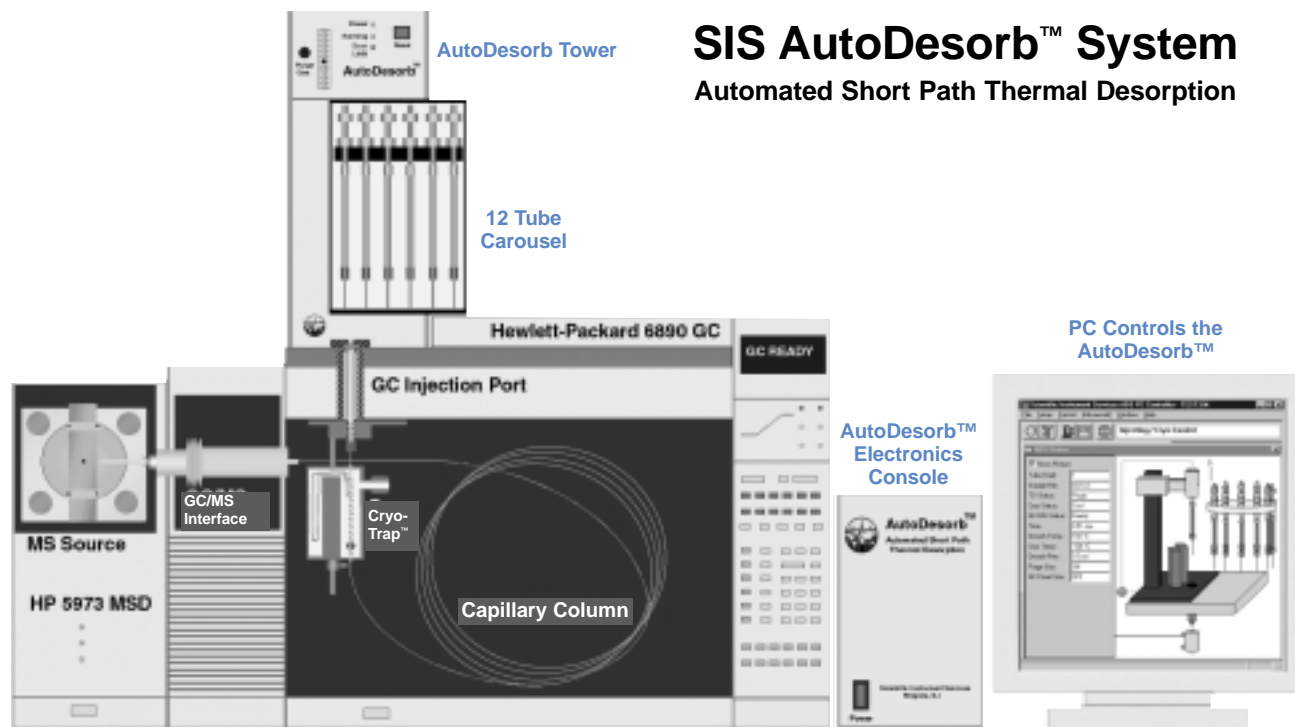
Third: Each sample has its own individual adsorbent trap tube and needle to eliminate the possibility of cross-contamination from sample to sample, thus preventing any "memory effect" due to overloading of the sample in the GLT desorption tube or due to residues from previous samples.



AutoDesorb System mounted on the Agilent 6890 GC and 5973 MSD

Fourth: The new automated system permits the unattended analysis of multiple samples, thereby increasing the productivity of the laboratory

Fifth: The “short path” thermal desorption technology provides the most versatile techniques for the analysis of a wide range of volatile and semi-volatile organics from gas, liquid and solid matrix samples.



Complete AutoDesorb System and its components mounted on an Agilent GC/MS

SIS AutoDesorb™ System Automated Short Path Thermal Desorption