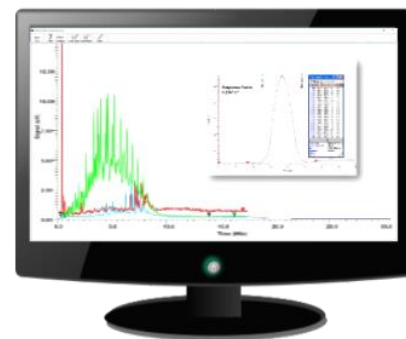




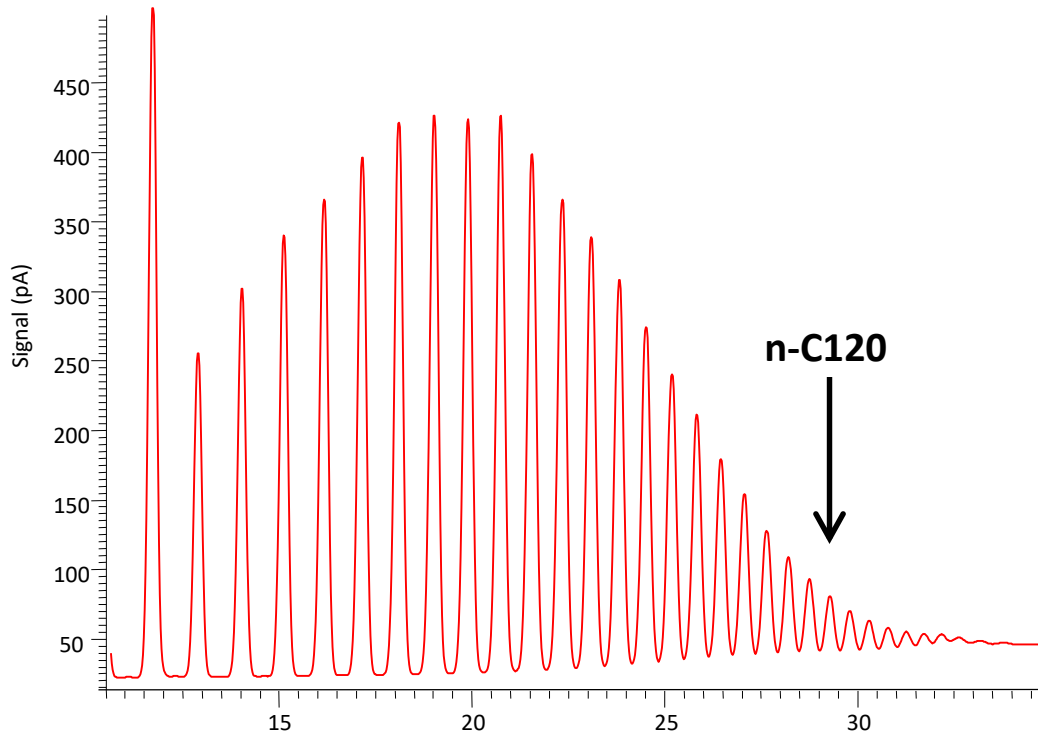
SimDis[®] Inlet

Optimized Design for High Temp Simulated Distillation



Why Use the SimDis® Inlet?

- ✓ Utilizes proven programmed temperature vaporizing (PTV) technology
- ✓ Delivers excellent analysis accuracy and precision
- ✓ Can be cooled down without the use of cryogen for reduced cost and improved safety
- ✓ Glass liners are easily removed for cleaning or replacement saving lots of time
- ✓ Unique 'near column' design = unwanted residue remains in liner extending column lifetime to save money and simplify operation by reducing the number of re-calibrations.



The design geometry and glass liner of our patented temperature programmable vaporizing SimDis® Inlet work together to provide superior peak symmetry throughout each analysis as well as extending the lifetime of the column.



Seamlessly integrated in the popular Agilent 7890 GC

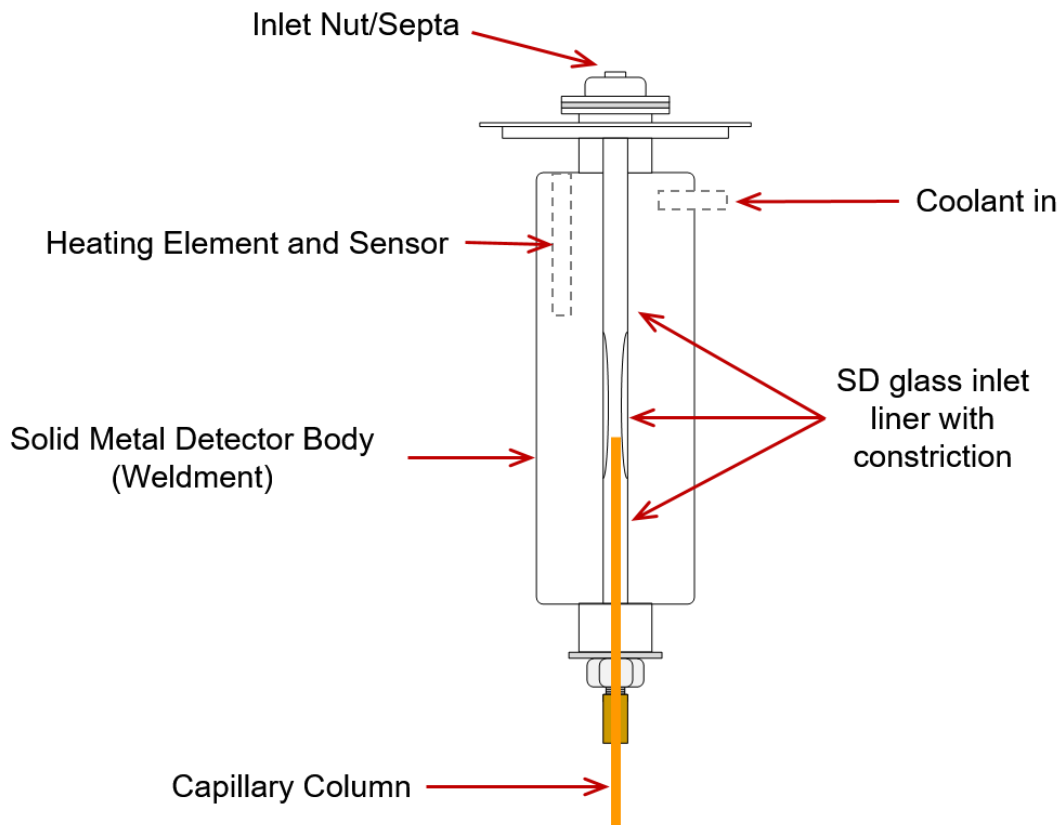
The SimDis® Inlet Advantage

The SimDis® Inlet like all programmed temperature vaporizing inlets offers distinct advantages compared to other sample introduction techniques for capillary gas chromatography such as isothermally controlled inlets and cool on column. Isothermal inlets are especially prone to boiling point discrimination due to the so-called 'hot needle' effect and/or to split injection.

Because of the temperature programmability of PTV inlets, sample can be introduced at a relatively low temperature then heated in a rapid controlled manner to minimize or eliminate boiling point discrimination. And, since there's no splitting of the sample, all of the components are delivered to the column for separation.

On column inlets are usually the 'go to' choice for superior chromatography because all of the sample is directly deposited into the column itself with no chance for discrimination as described above. However, high temperature simulated distillation test methods require sample dilution in carbon disulfide solvent so the sample can be introduced to the GC in a homogeneous manner. This creates two problems to overcome. First, the large volume of solvent delivered to the column relative to the amount of sample material contained in it impedes the ability of the column to separate the hydrocarbon components especially those with low boiling points. Plus, the thin film on the column required to separate such a wide range of components only exacerbates this. Second, because all of the material contained in the sample is deposited into the column, any material not volatilized will remain trapped in it. So, although you will probably get good results or what appear to be so in the early going, the performance of the column will quickly begin to deteriorate requiring more frequent column maintenance and, eventually, replacement.

The SimDis® Inlet offers clear advantages over other PTV inlet designs with regard to these issues. It's novel 'near column' design geometry ensures the sample is deposited far enough away from the entrance of the column to prevent non-volatilized materials from entering but close enough to allow all of the volatilized material to flow into it in a very repeatable manner. This results in two big advantages for high temperature simulated distillation: excellent analysis performance and extended column lifetime.





Your **One Source** for
Simulated Distillation

www.separationsystems.com

About Us

We are a minority owned business located in Gulf Breeze, Florida. We offer GC and GC-MS based analysis systems, application software, consumables, support and training for petroleum refining, bio-fuels and petrochemical applications. Our systems are comprehensive in nature and include a GC or GC-MS, our own specialized hardware and software, reference & calibration standards, consumables, training and support.

While the majority of our systems are designed to meet the international standard testing method requirements (ex. ASTM, EN, ISO), we also design systems for special requirements including custom software.

Headquarters

Separation System, Inc.
100 Nightingale Lane
Gulf Breeze, Florida 32651
USA

Telephone: 1-800-340-3302
Email: sales@separationsystems.com
Web: www.separationsystems.com