SCION INSTRUMENTS

Instrument Solutions

Technology for Your Success!

Compass CDS

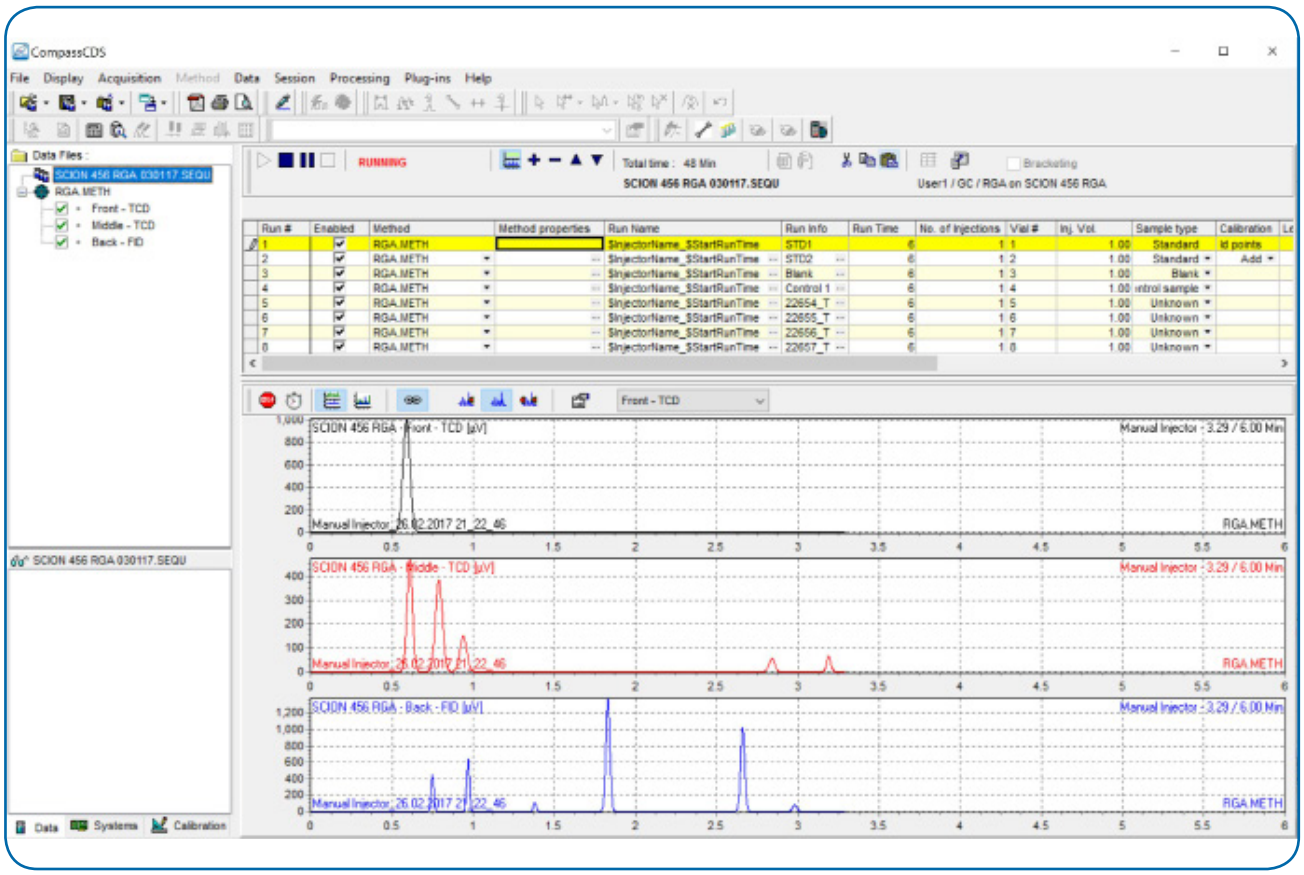
Chromatography Data System

www.instrument-solutions.com

Single Platform - Simply Powerful

CompassCDS is SCION Instruments' universal Chromatography Data System designed for instrument control, data acquisition, processing and reporting. With its unique capacity for customization, CompassCDS provides users with a powerful data analysis tool with comprehensive calibration and calculation options. Originating from the legacy Galaxie CDS, CompassCDS has evolved into the next generation CDS which easily integrates with LIMS, PCS/SCADA, ERP and other commonly used data management systems.

The CompassCDS operator-friendly and intuitive graphical user interface (GUI) has been designed to improve the operator experience by streamlining workflows thereby increasing sample throughput and overall productivity. The Dual View function, when used in conjunction with the InstantView option, enables users to run samples, view live data acquisition and review and report results from a single screen without the need to retrieve any data files. CompassCDS also comes standard with the feature set required to support laboratories that are required to comply with 21CFR11 and ISO/IEC 17025, and others.

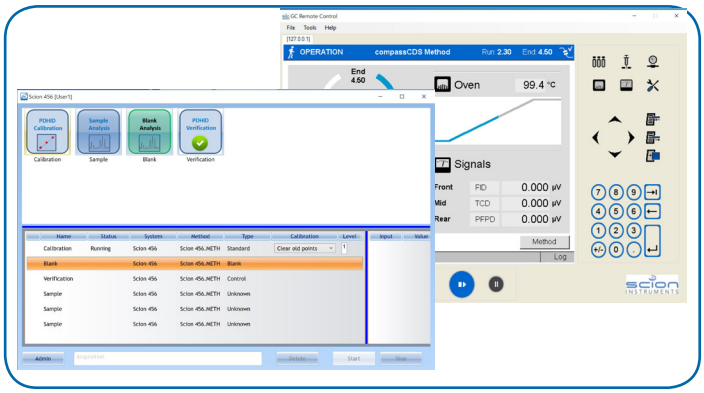


Plug-in Flexibility

CompassCDS provides users with one of the most powerful chromatography data management solutions available today. However, there are often application-specific instances that require additional flexibility and for these, CompassCDS has a comprehensive and well documented API that enables the development of custom pre- and post-run plug-ins. Examples of the many plug-ins currently available include:

1-Button interface

The **1-Button interface**, was developed for plant operators to be able to run samples and when necessary recalibrate as single icon clicks without having to access the CompassCDS application. This pre-run plug- in can also be set to continuously sample product streams 24/7 when not being used to run operator samples.

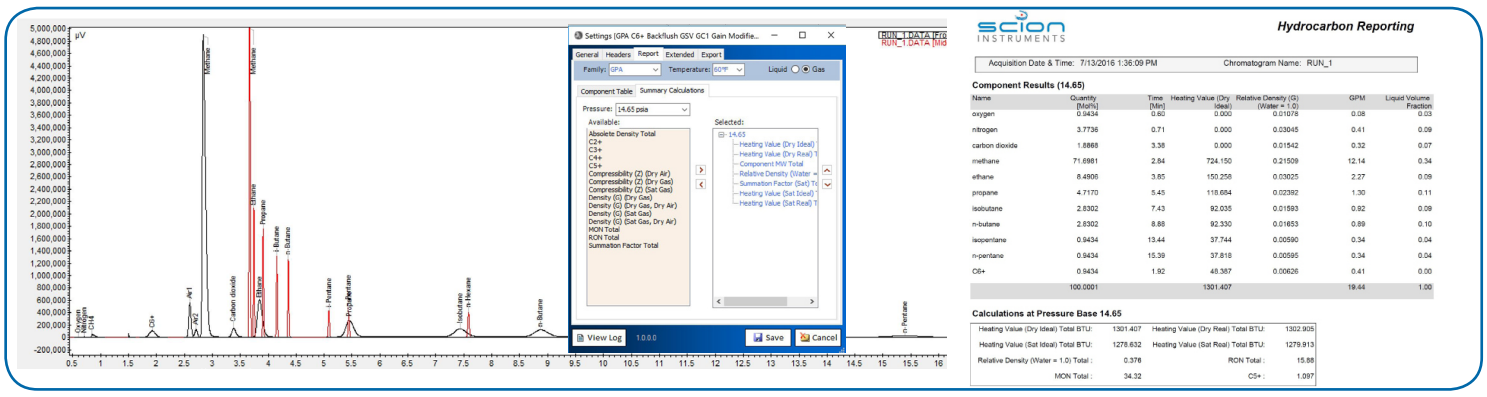


Hydrocarbon Reporting Tool

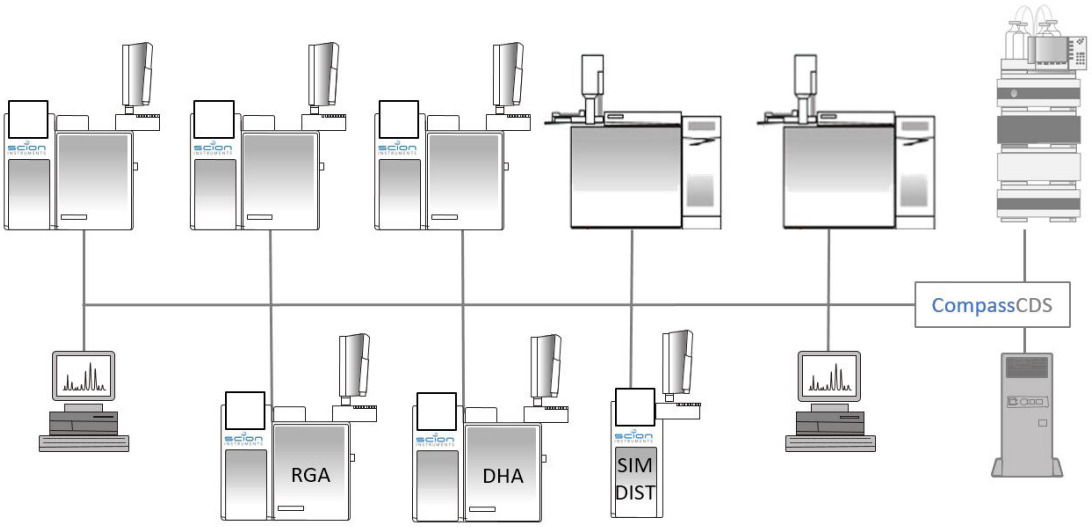
The **Hydrocarbon Reporting Tool** is a user customizable post-run plug-in that per- forms GPA/ISO and ASTM calculations on gas samples from single to multi-channel analyzers and ….produces custom reports in PDF, CSV and XML format for data exchange with LIMS and ERP.

ChromSync

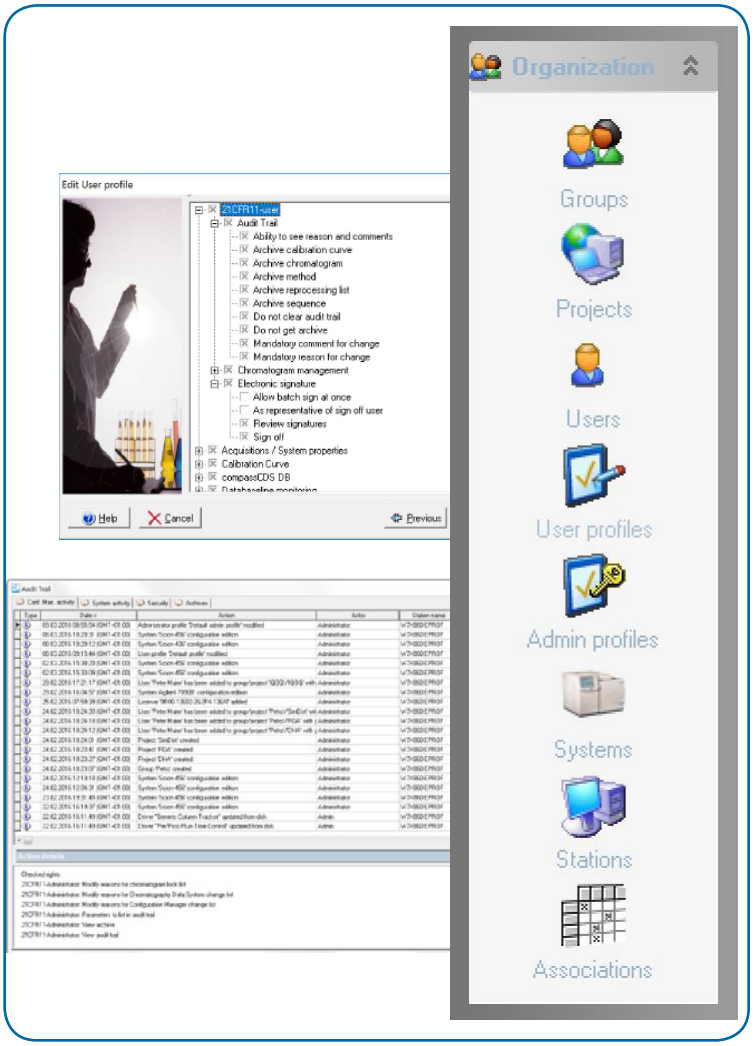
ChromSync is a post-run plug-in, initially developed for the flavor and fragrance industry, that automates the manual task of comparing complex chromatograms against reference standard runs. The ChromSync peak matching algorithm accommodates significant peak distortion and retention time shifts. Area % comparison of matched peaks are compared against predefined tolerance limits to provide an overall degree of similarity and color coded pass/fail reports are generated.



Scalable Solution



CompassCDS can be installed as a simple, single PC workstation application controlling a couple of instruments through to a multi-lab, multi-vendor and multi-instrument networked enterprise client/server solution and anything in between. When deployed as a client/server system, CompassCDS can be installed in a number of configurations that conform with the current networking and operating system architectures including classic “fat” client, metaframe “thin client” and virtualized environments, and in certain instances, combinations of these. The CompassCDS unique acquisition and control architecture can be centralized on the main server or distributed among several acquisition servers/PCs and should a computer controlling the instruments fail, the ownership and subsequent control of those instruments can be quickly transferred to another PC with a few mouse clicks.



Secure, Centralized Administration

Using the separate and secure Configuration Manager, system administrators can build their own customized CompassCDS structure, in terms of groups, projects, data storage paths, users, user access profiles, instruments, regulatory compliance and overall system security policies, from any CompassCDS computer on the network.

Configuration Manager settings are invisible to CompassCDS users while all of their actions including logon/logoff, run starts and stops etc. are monitored and recorded in archivable audit logs in compliance with 21CRF11.

Complete Control

CompassCDS has an ever-expanding suite of instrument control drivers that enable users to operate any number of chromato- graphic systems from any computer. Currently the CompassCDS control driver selection includes:

- SCION 436 and 456 GCs and Analyzers
- Agilent 7890 A/B, 6890/6850 and 5890 GCs
  Bruker 436, 456, 430 and 450 GCs
- Varian 430, 450, 3800 and 3900 GCs
- CTC CombiPal and xt
- Agilent 1100, 1200 and 1260 LC
- Varian Star 800/850 MIB Interface (analog input, relays, RS-232, GPIB)
- National Instruments 9181/4, 9219, 9401, 9481, 9265 (analog input, relays, TTL I/O, 4-20mA out)

Also, all Galaxie instrument control drivers are supported as well securing the transition from Galaxie CDS to CompassCDS.

Redundant Data Storage

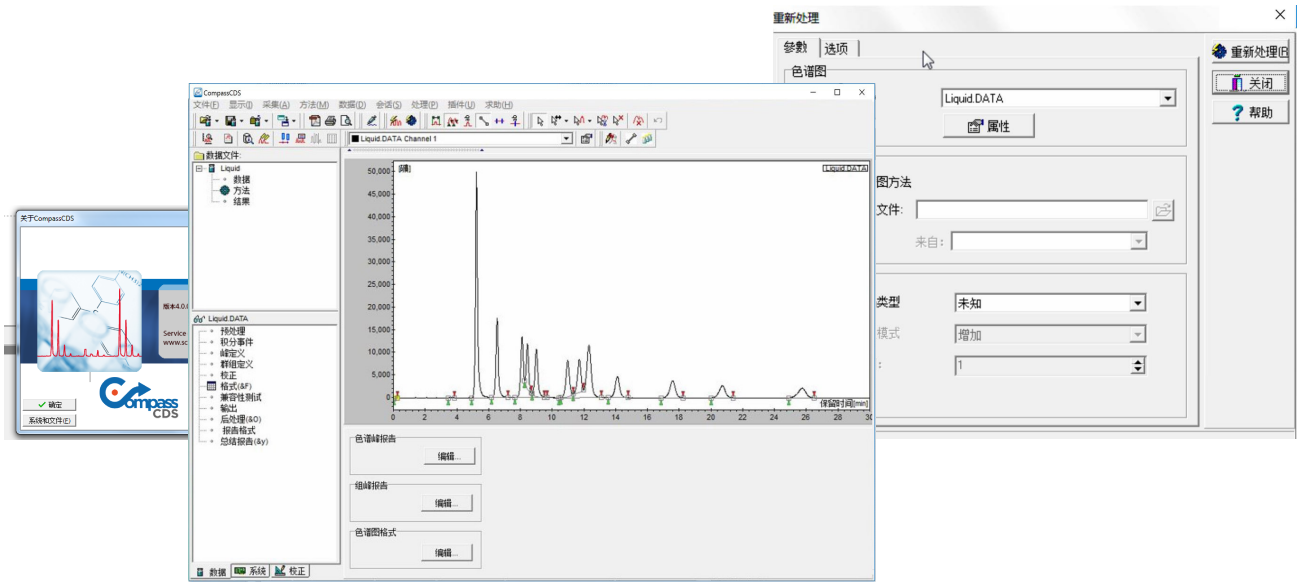
CompassCDS makes use of an All-In-One flat file as the default data storage format. These .DATA files store all raw data points, a “live” copy of the method used to acquire and process the data, all results including any custom calculations and associated equations, all additional metadata (dates, users, calibrations etc.) as well as all audit trails, in a single encrypted file.

These files provide users with a single point of reference for all information pertaining to a single injection and importantly, provide easily transferrable data repositories for technical support.

The optional CompassDB application which can be installed on current versions of SQL server or Oracle provides an inexpensive additional layer of redundancy. CompassDB automatically stores copies of entire .DATA and other CompassCDS file types as Binary Large Objects (BLOBs) and metadata in relational database tables, creating a searchable data archive, the contents of which can be used to rebuild and recover entire .DATA files should these have been lost or corrupted on the CompassCDS server.

Multi-Language User Interface

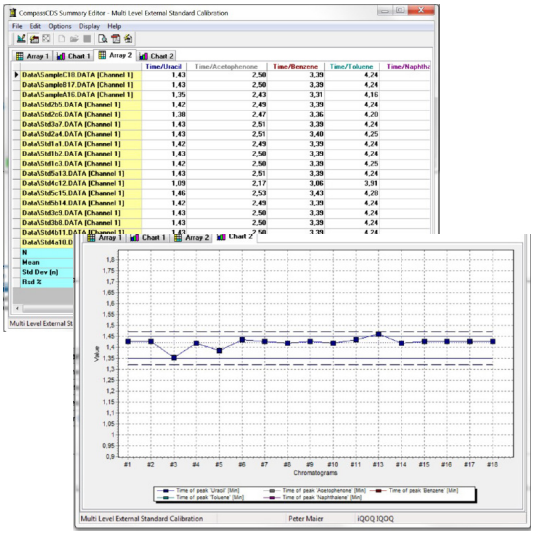
CompassCDS features a multi-language GUI supporting any language and helping to comply to national regulations and to shift user friendliness and overall acceptance of CompassCDS to highest level. Within or even across laboratories of multinational companies every user can thus decide for the preferred language to work with.



Chromatography Data Handling & More

Built-in capabilities to convert data into information:

Summary Reports use results from any number of chromatograms, taken in a single sequence or over the past months or even years, and calculate averages and standard deviations. Summary Reports can also plot and evaluate trends in data, detecting and flagging changes in chromatographic systems before these changes can compromise operation.

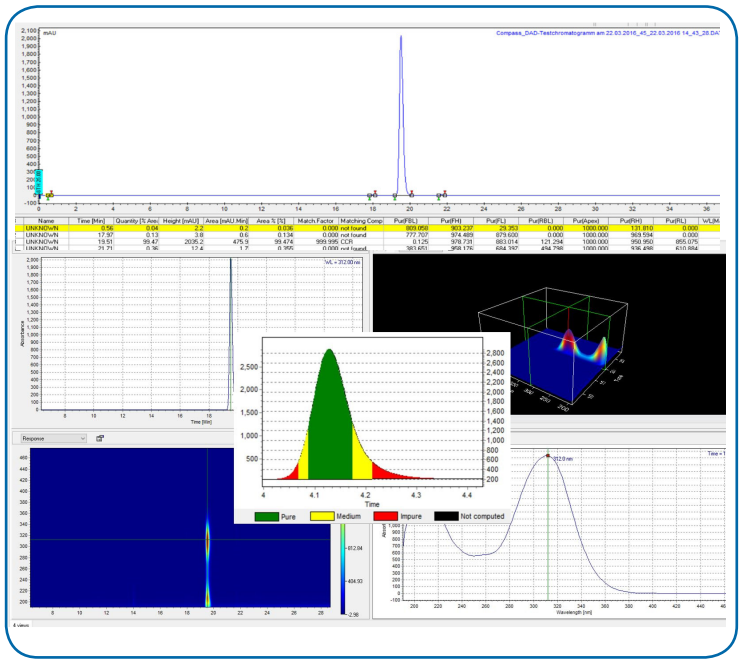


System Suitability software determines the quality of a chromatographic analysis, calculating parameters such as peak asymmetry and column efficiency. The software can compare the results generated from injected control samples to their expected concentrations. Limits put on these results can then be used to determine the best action to take to correct potential problems and ensure the integrity of data and results.

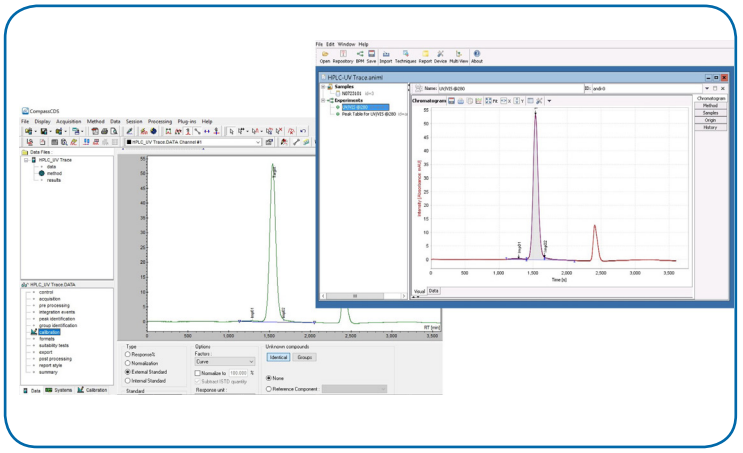
Column Tracker, an integrated database, keeps track of the identity and usage for all system columns. Every time an injection is made, Column Tracker records the injection – no matter which instrument or which column is being used. This information is stored in the database, as well as with each data file, providing a completely documented and traceable usage and performance history for every LC or GC column.

Print Manager allows users to conveniently export reports and chromatograms, in multiple formats to one or more network printers. CompassCDS can automatically convert chromatogram results to many different formats such as ASCII, Excel, or AIA, simplifying the ability to perform further calculations or modeling. Furthermore, it's easy to interface with other systems like LIMS, LES or ERP.

PDA and FLD spectral processing software determines the identity and purity of peaks, and displays the information both graphically and numerically for easy interpretation. Purity and identity information is integrated into standard chromatographic reports for a complete analysis of each sample.



AnIML Converter and Viewer converts .DATA raw and metadata information into a specific human-readable XML format for long-term storage. AnIML (Analytical Mark-up Language) files can be saved together with the original .DATA file in a LIMS, LES or ERP, and reviewed at any time in detail with a specific viewer even after decades of years and without having the need to run CompassCDS natively. Additionally, AnIML helps to facilitate data exchange data within or across workgroups or research and development organizations, and to finally overcome the limitation of pure PDF-based documentation for long-term archival.



CompassCDS - Your premier choice in CDS

Oil/Gas | Chemical | Pharmaceutical | Environmental | Food

SCION-Certified Consumables for Your SCION GC

SCION GC columns span a broad range of column lengths, diameters, stationary phases, and materials including: Fused Silica (FS) and Inert Steel (IS). Ideal for either routine or research type analyses, Scion GC columns cover a wide range of applications and include:

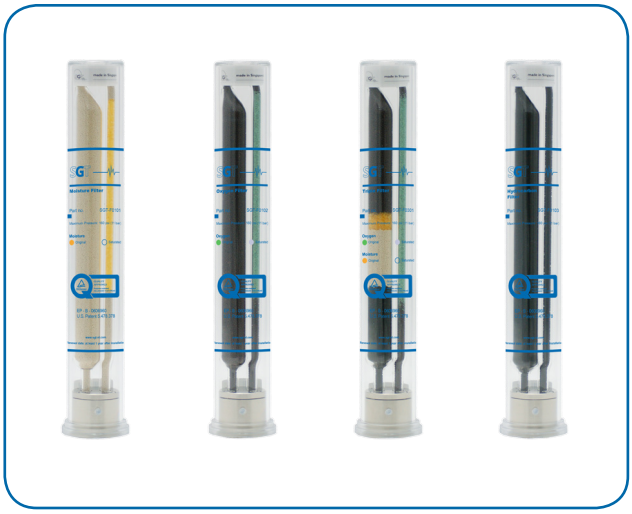
Standard WCOT (Wall Coated Open Tubular)

Solid Stationary Phase PLOT (Porous Layer Open Tubular)

Inert Steel Micro-Packed and Packed

Super Clean™ Gas Filters

SCION Gas Purification Systems have the range to satisfy your needs from individual to combination filters, from Ultra purity combined with Ultra capacity, to all in one solution kits. Innovative features designed into the product yield extensive benefits to the user.



- Ultra-high capacity for long life, less change and improved productivity
- High-purity output ensures 99.9999% Pure Gas
- “Quick connect” fittings for easy, leak-tight filter changes
- Glass internals prevent diffusion; plastic externally for safety
- Easy-to-read indicators for planned maintenance and improved up-time

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