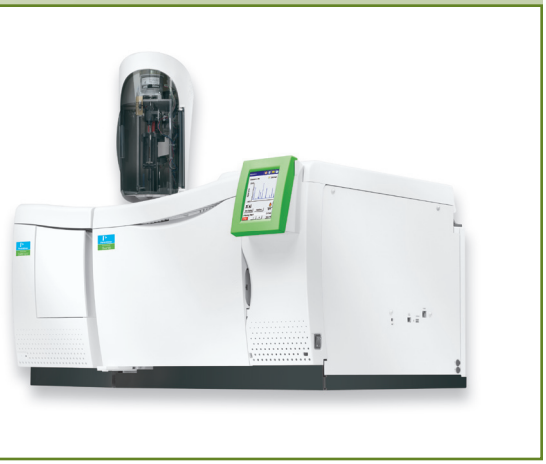
PRODUCT NOTE

SMARTsource for the Clarus SQ 8 GC/MS



Return Your GC/MS To As-New Performance Levels With The Industry's Most Accessible Source.

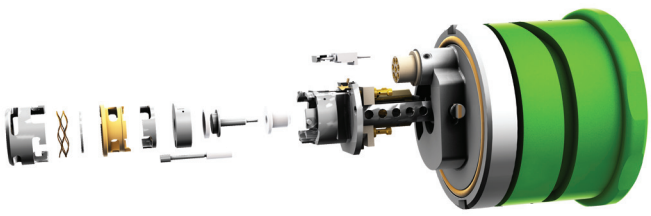
The PerkinElmer Clarus® SQ 8 GC/MS comes standard with SMARTsource™ (Simplified Maintenance And Removal Technology), the industry's easiest source to remove, clean and reassemble. A simple twist of the SMARTsource allows users to completely remove the ion source and lenses of the MS system for maintenance. The source is easily removed from the front of the instrument—no covers to remove, no need to expose the quadrupole or detector systems to the external environment.

Once removed, SMARTsource is the easiest source to return to peak performance. Based on patented bayonet technology, the source can be completely disassembled and re-assembled without using any tools. It also gives users three options for getting back to original performance levels as quickly as possible:

1) Replace the dirty source with a spare source allowing for pump down just seconds after source removal.

2) Disassemble and replace the dirty ion optics with a clean optics kit—getting the instrument pumping down in a matter of minutes and allowing the original optics to be cleaned as time permits.

3) Disassemble and polish the source and ion optics, then reassemble.



Once disassembled, all the critical components of the ion source are clearly marked to ensure proper assembly each and every time.

PerkinElmer®
For the Better

Thoughtful design. Easy operation.

The simplicity and robustness of the SMARTsource design continues all the way through to its electrical connections. All the critical connections required within the source assembly are completed by sliding a single ceramic connector into place, eliminating the confusion of determining the correct orientation of wires. The final electrical connections are automatically made when the source is inserted into the MS manifold.

A unique cam-lock designed insertion and sealing mechanism auto-aligns the electrical connections and ion optics ensuring that the source is properly positioned and connected for optimal MS performance every time. This design slowly and properly aligns the system and makes a vacuum-tight seal as the user twists the source into place. The shape of the channel that seals the source to the instrument prevents users from forcefully misaligning the pieces, protecting the system from damage. When inserting the source into the MS, orientation is again made obvious with bold key marks similar to those on a camera lens. The final result is a source that anyone can properly insert the first time—and every time—eliminating the risk of o-ring leaks and forgotten electrical connections.

Unique technologies and capabilities.

SMARTsource is available in both Electron Impact (EI) and Chemical Ionization (CI) models. The source can be easily configured by the user for either mode of operation, and a quick-conversion kit enables the switching between techniques in less than three minutes.

Available on all PerkinElmer Clarus GC/MS systems, the patented Marathon Filament provides unsurpassed lifetime in both EI and CI mode. The Marathon Filament operates at a lower emission temperature, significantly extending operational lifetime and leading to improved laboratory productivity. Even when exposed to air, water or a variety of common halogenated and non-halogenated GC/MS solvents, the filament's robust design delivers uncompromising long-term performance.

The PerkinElmer Clarus SQ 8 GC/MS with SMARTsource allows laboratories to achieve the sensitivity and stability they need today and tomorrow. The instrument's easily serviceable design also allows users to maintain their system to keep it performing day after day.

A simple twist and pull is all that is required to access the tool-free SMARTsource on the Clarus SQ 8 GC/MS.

PerkinElmer, Inc.
940 Winter Street
Waltham, MA 02451 USA
P: (800) 762-4000 or
(+1) 203-925-4602
www.perkinelmer.com

For a complete listing of our global offices, visit www.perkinelmer.com/ContactUs

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