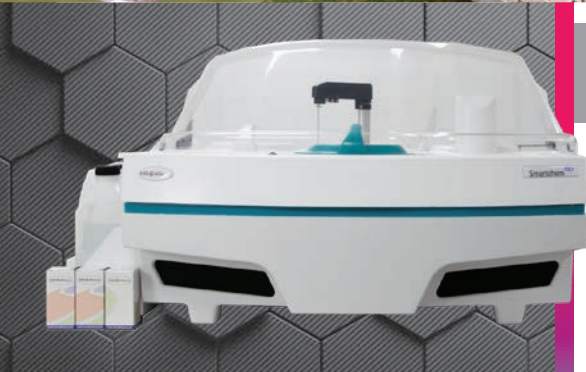


# SmartChem<sup>®</sup> Series



Automated, High Capacity Wet Chemistry Platforms

a  KPM ANALYTICS brand



## Optimize Your Everyday Laboratory Operations

### FEATURES:

- Automated start-up for instrument readiness
- IF THEN driven test sequences
- Samples are kept in discrete cells to reduce error
- Automated, out-of-range retesting decision making
- Integrated wash and control station before and after every analysis
- Optimization of time-consuming techniques such as pH, Cond, ORP
- Full LIMS integration available

Wet chemistry is a proven method for analysis of samples in environmental, industrial, research, and quality control applications. The SmartChem<sup>®</sup> Series is a wet chemistry platform for automated photometric and electrochemical analysis. Using a single platform to run samples, manage calibrations, standards, maintenance, and operator training, the SmartChem<sup>®</sup> platform offers a reliable and convenient walk-away solution to increase your laboratory's productivity. Laboratory scientists can concentrate on added-value activities and tasks, while SmartChem<sup>®</sup> automates repeatable, traceable and regulatory compliant testing.

### FULLY AUTOMATED & EFFICIENT

SmartChem<sup>®</sup> operates using small sample reactions ( $\mu$ l). This reduces reagent usage, and less waste is produced, improving your efficiency and environmental footprint while reducing costs. Our tabletop and stand-alone Smartchem<sup>®</sup> analyzers offer complete analytical solutions with our ready-to-use reagents.

### APPLICATIONS

- Water and environmental
- Soil, plants and fertilizers
- Food and feed
- Beverages, wine and beer
- Chemical

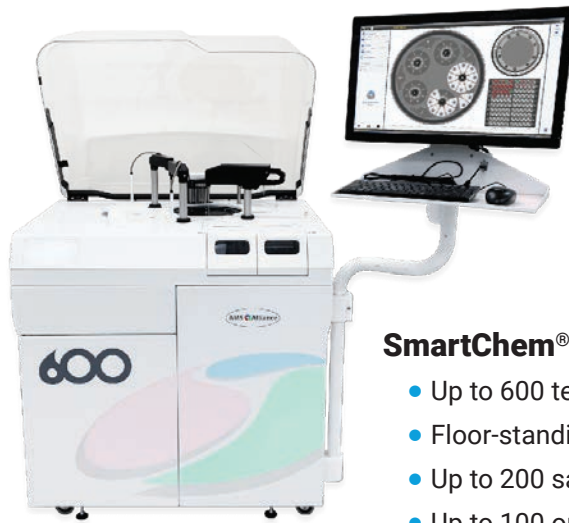
## OPTIONS THAT FIT YOUR LABORATORY

SmartChem®450 and SmartChem®600 analysers are available in different configurations running up to 450 and 600 tests per hour respectively and their versatile sample and method loading capacities, together with their optional analytical modules allow a complete walkaway solution for your wet chemistry testing.



### SmartChem® 450

- Up to 450 tests/hour
- Benchtop analyser
- Up to 100 sample positions
- Up to 72 on-board reagents



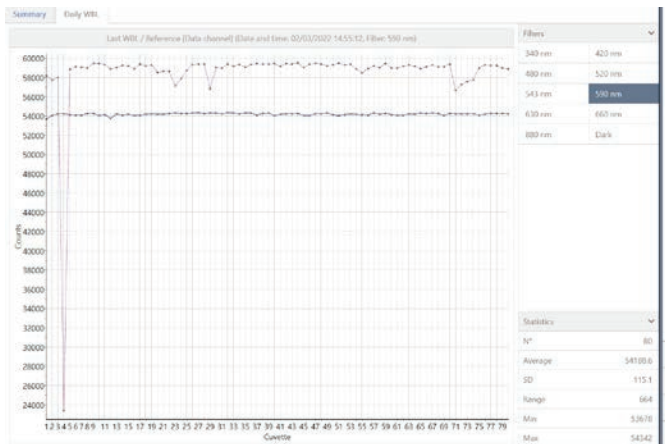
### SmartChem® 600

- Up to 600 tests/hour
- Floor-standing analyser
- Up to 200 sample positions
- Up to 100 on-board reagents

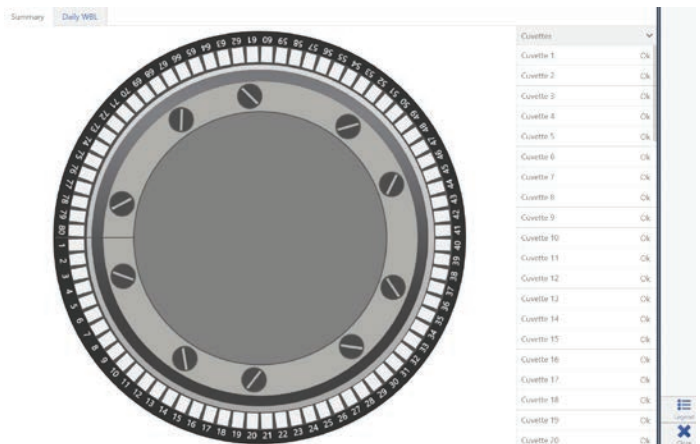
## TRUE WALKAWAY SOLUTION

SmartChem® analysers use reusable cuvettes via their built-in wash module, allowing a true walkaway experience for operators because no cuvette or similar consumable reloading is required during the programmed analytical series. SmartChem® 450 and 600 platforms have an up to 100 and 200 sample positions capacity respectively. With their built-in cuvette wash module, any potential limit to the number of samples and tests per sample that can be loaded on a single work program is eliminated (in terms of cuvette positions availability). There is always an optically checked and ready to use cuvette available after each wash cycle.

SmartChem® wash module and cuvette analytical performance are tested both in-house and in many locations where our analysers work on a daily basis, ensuring no cross-contamination is expected. Additionally, special wash rules can be programmed for specific methods.



WBL optical check per wavelength



WBL optical readiness overview

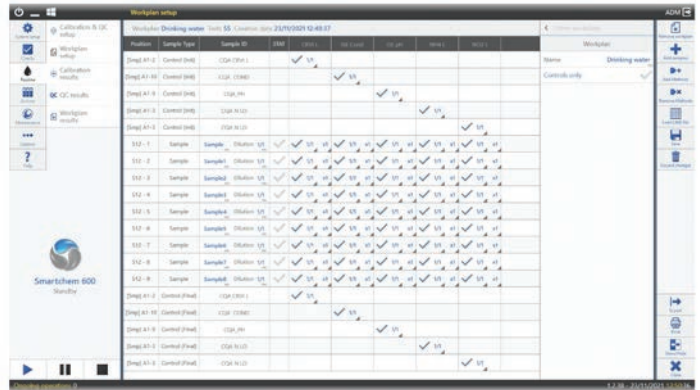


## EASY-TO-USE SOFTWARE

SmartChem® Series software makes operating your analyser simple. The user interface fully replicates the instrument for the operator, making it easy to set-up and run tests. After loading all required reagents, controls, calibrators and samples, the operator sets up the work plan, including any required IF-THEN testing and reflex testing iterations as per method or laboratory requirements. Once the test routine is finished, all results are presented in a report that can be exported to LIMS.



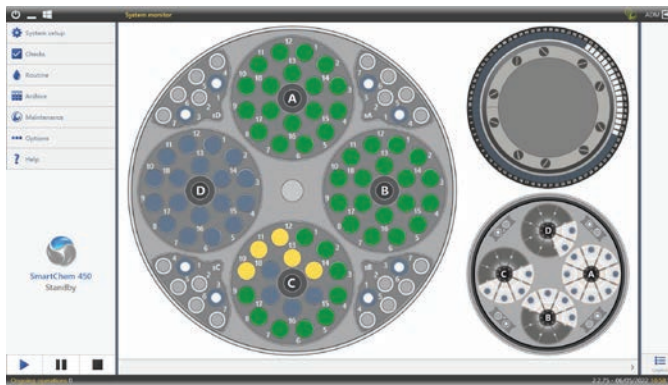
Calibration Curve



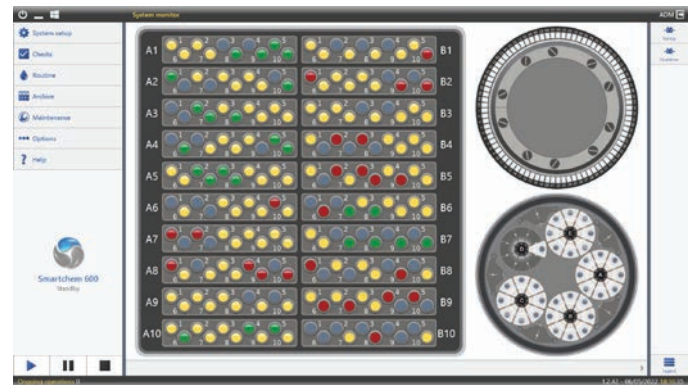
Workplan Set-up

SmartChem® intuitive User Interface provides the operator a complete control and visualization of the instrument's operation and performance. SmartChem®450 and SmartChem®600 platforms share the same software operation structure, meaning operators can exchange instruments without the need to learn new working modes.

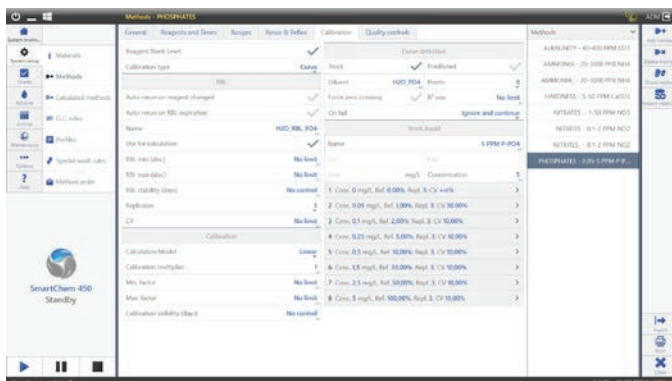
The SmartChem® Software suite allows a complete configuration to its different operators: from basic setup and operation to advance users and method configuration / development.



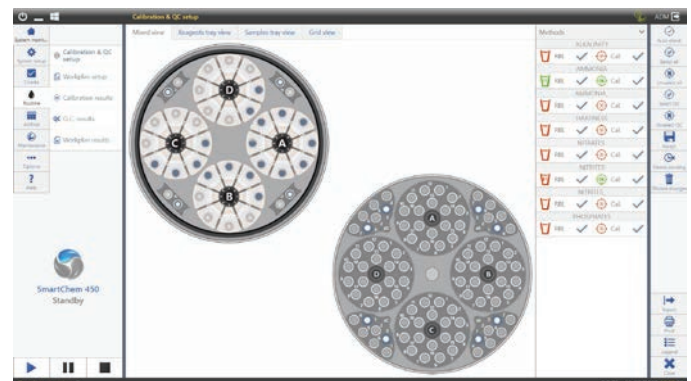
SmartChem®450 System Monitor



SmartChem®600 System Monitor



SmartChem® Method Configurator



SmartChem® QC and Calibration setup

## COMPANION PRODUCTS



We offer a full range of enzymatic and colorimetric reagents dedicated to our SmartChem® series of discrete analyzers. Developed, tested and validated by our application laboratory, they will guarantee perfect stability and reproducibility of your analyses.

Very easy to use, they are liquid, supplied in specific bottles made for SmartChem®.

This ready-to-go solution greatly simplifies the preparation of your analysis and facilitates the use and storage of reagents. It also secures your analyses with reagents adapted to your application and your instrument.

## MODELS AND OPTIONS AVAILABLE

	EC Module	NO <sub>3</sub> Reduction Module	Barcode Readers	Cuvettes
SmartChem®450	✓		<i>Optional:</i> Reagents and Samples	Styrene / Optical Glass
SmartChem®450		✓		
SmartChem®600	✓		<i>Included:</i> Reagents and Sample	Styrene
SmartChem®600		✓		
SmartChem®600	✓	✓		

## SPECIFICATIONS

	SmartChem 450	SmartChem 600
<b>Dimensions</b>	Height x Width x Length: 50 x 70 x 105 cm (19.7 x 27.6 x 41.3 in.)	Height x Width x Length: 96 x 70 x 120 cm (37.8 x 27.6 x 47.2 in.)
<b>Weight</b>	48 kg (106 lbs)	115 kg (254 lbs)
<b>Power</b>	350 Watts	430 Watts
<b>Assay Type</b>	End Point, Kinetic, Differential, Bi Chromatic Assays, Fully Programmable, pH, Conductivity, ORP	End Point, Kinetic, Differential, Bi Chromatic Assays, Fully Programmable, pH, Conductivity, ORP
<b>On-Board Reagents</b>	Up to 72 Reagents can be Loaded into the Refrigerated Compartment	Up to 100 Reagents can be Loaded into the Refrigerated Compartment
<b>Sample Loading</b>	<ul style="list-style-type: none"> <li>4 Universal, Separate Racks for Continuous Loading of Samples, Calibrators, and Controls, for Total Capacity of 100 Positions</li> </ul>	<ul style="list-style-type: none"> <li>Up to 200 Samples on Board</li> <li>2 Independent Carousels Hosting 20 Racks of 10 Positions Each, for Continuous Sample Loading</li> </ul>
<b>Throughput</b>	Up to 450 Tests/Hour	Up to 600 Tests/Hour
<b>Reading System</b>	<ul style="list-style-type: none"> <li>Direct Photometry</li> <li>Photometer: Multi-Wavelength optics, Double Beam</li> <li>Wavelength: 12 Wavelengths Available with 9 on Board</li> <li>Source: Halogen Lamp 6V/10W</li> <li>Optical Path: 10 mm</li> <li>Linear Range: 0.001 – 2.500 Abs</li> <li>Resolution: 0.0001 Abs</li> </ul>	<ul style="list-style-type: none"> <li>Direct Photometry</li> <li>Photometer: Multi-Wavelength optics, Double Beam</li> <li>Wavelength: 12 Wavelengths Available from 340 nm to 880 nm</li> <li>Source: Halogen Lamp 6V/10W</li> <li>Optical Path: 10 mm</li> <li>Linear Range: 0.001 – 2.500 Abs</li> <li>Resolution: 0.0001 Abs</li> </ul>
<b>Minimum Reaction Volume</b>	300 µl (Cuvette Type Dependent)	180 µl
<b>Sampling System</b>	<ul style="list-style-type: none"> <li>One Mechanic Arm Provides All Sampling Operation</li> </ul>	<ul style="list-style-type: none"> <li>3 Sampling Arms (1 for Samples and 2 for Reagents)</li> </ul>
<b>Reaction Plate</b>	<ul style="list-style-type: none"> <li>Holds 80 Cuvettes</li> </ul>	<ul style="list-style-type: none"> <li>Holds 85 Cuvettes</li> </ul>

Learn more about how the SmartChem® Series can save you time and money at [www.kpmanalytics.com](http://www.kpmanalytics.com)



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