Futura
SEGMENTED FLOW ANALYSIS PLATFORM

KPM | **AMS Alliance**
a KPM brand

Auto Analyzers for Multiple Industries and Applications

Segmented flow analysis is a traditional and proven technique for environmental, tobacco, soil, fertilizer, wine, food and feed and other industries. Since its inception in the second half of the twentieth century, this technique has become a reference in different disciplines of chemical analysis.

For over 30 years, the AMS Alliance brand of products has been a leader in developing and innovating segmented flow analysis technologies that exceed our customer's needs. The FUTURA platform reflects this experience in the market and provides a complete and reliable laboratory solution for automatic testing of a wide range of parameters.

FULL AUTOMATION AND MODULARITY

FUTURA can be integrated with our full automation module, allowing start-up and shutdown to be completed autonomously from a designated PC. This enables unattended testing without compromising reagent overuse.

FUTURA configurations can be built with up to 14 consoles (independent analytical channels), allowing for all levels of complexity to be managed for your laboratory.

FUTURA has been designed to operate with high productivity and efficiency for all chemistries – from simple to the most complex analysis.

APPLICATIONS

Laboratories use FUTURA 3 to perform tests on important parameters in water and soils (drinking, waste, surface, sea and ground water), tobacco, and beverages such as:

Drinking Water	Waste Water	Sea Water	Soil /Fertilizer	Tobacco	Wine	Dairy
Ammonia					Enzymatic sugars	Nitrate
Nitrates/Nitrite, TKN				Nitrite	Free Total SO_2	Nitrite
Phosphate, TP, TN				Cyanide	Volatile acidity	Formaldehyde
MBAS	Silicates	Cr		Starch	Reducing sugars	
Phenol	Chloride	K		Sorbic Acid		

FUTURA FEATURES

- Method-dedicated analytical console approach

- Up to 14 consoles can be run simultaneously

- Integrated console display to monitor and adjust your method and chemistries

- Integrated reagent drawer to minimize spills

- Three-speed, high-precision pump

- Choice of macro and micro flow manifolds

- Optional dual probe on all autosamplers

- Physical and software driven debubbling

- Wide range of samplers and accessories

- Compliance with reference methods
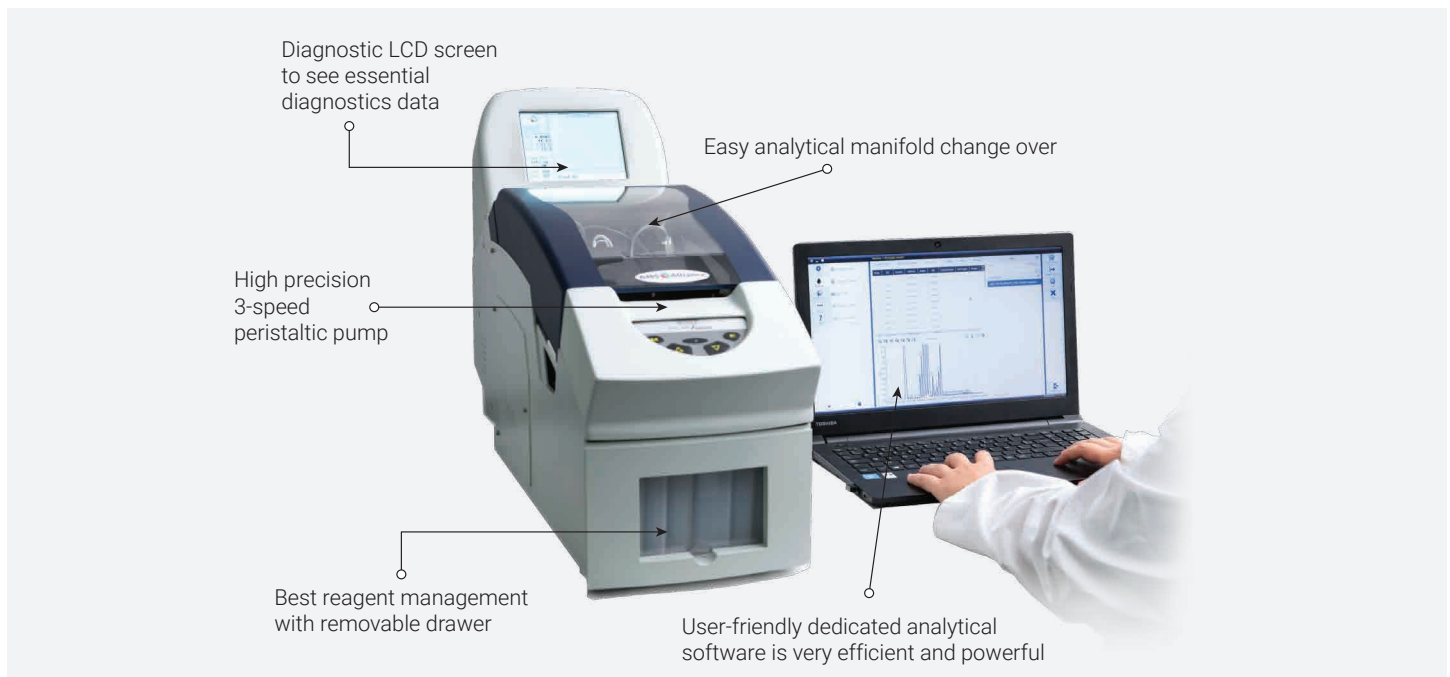
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EFFICIENCY AND PRODUCTIVITY

Full automation of all chemistries is handled by in-line pre-treatment and 100% automation: dialysis, distillation, UV digestion, injection, dilution, mixing, incubation and liquid/liquid extraction.

The automation of complex chemistries is facilitated by the «full auto» module (optional), which automatically handles the external modules and accessories. This operation is easy to run using FUTURA software.

The fully automated process includes programmable start-up and shutdown, preparation of standard solutions, pre- and post-dilution of off-range samples, and automatic rinsing. FUTURA combines automation and modularity for superior performance.

- High precision 3-speed peristaltic pump, including independent electronic and detector module with single or three-speed (depending on model).
- Multiple path length flow cells 5 to 50 mm (longer path lengths can be defined) for a wide variety of analytical ranges, which guarantees the best accuracy (according to the parameter).

- Digestion or in-line distillation modules for automatic sample preparation (integrated on some devices or samplers).
- 3 detectors available:
    - UV/Vis colorimeter (in standard)
    - Flame photometer for Potassium and Sodium analysis
    - Fluorometer

Diagnostic LCD screen to see essential diagnostics data

Easy analytical manifold change over

High precision 3-speed peristaltic pump

Best reagent management with removable drawer

User-friendly dedicated analytical software is very efficient and powerful

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FUTURA SOFTWARE

The FUTURA analytical software is dedicated to CFA (Continuous Flow Analysis) technology. It prepares calibration standards, runs samples and quality controls, dilutes any out-of-range samples, prints reports and QC charts, exports data to LIMS, washes out the manifold and manages shutdown operations.

The software is user-friendly, efficient and powerful, designed to simplify your day-to-day operations. It runs the analysis of all parameters on each channel (up to 14 channels) and drives auto-samplers and accessories for automatic sample preparation.

During analysis, the software monitors all performance details (heating bath temperature, voltages, detector outputs) and alerts the user of any problems.
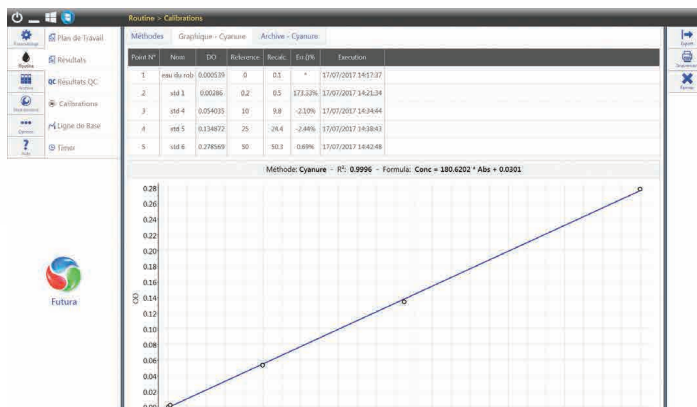
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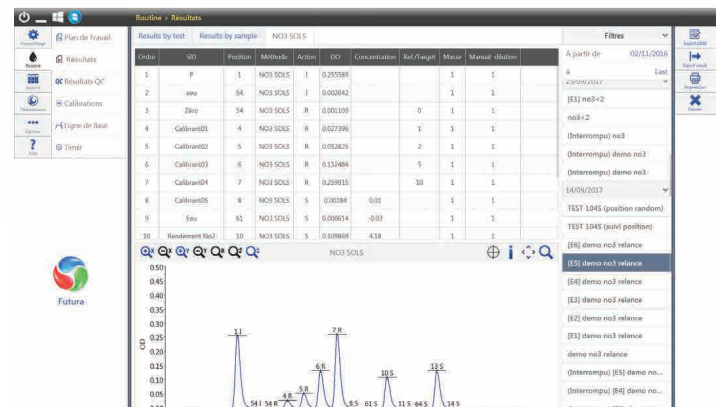
Workplan Results

AUTOSAMPLERS

	Number of positions	Dual probes	Dilutor	Ultrasonic processor
104	104	Optional[1]	Optional	Optional
XYZ	up to 360	Optional[2]	Optional	-
XYZ XL	up to 720	Optional[2]	Optional	-

[1] *Up to 4 probes*   [2] *Up to 3 probes*

FULL AUTO MODULES

Automatic handling of external modules and accessories for automation of complex chemistries and sample preparation.

Full Auto Standard Version	Full Auto Detergents	Full Auto TP/TN

ACCESSORIES

In-line digestion	UV Digestor

Distillation module with integrated temperature regulation, for single and double in-line distillation. For use in applications such as cyanides in water, phenols index, volatile acidity and SO2 in wines.

DETECTORS

UV - Vis Colorimeter	Standard	
Flame Photometer	Optional	Na and K analysis
Fluorimeter	Optional	

SPECIFICATIONS

Operation (Multi Parametric Batches in Parallel)

Operation	Multi parametric batches in parallel
Samples	Analytical Rate: From 15 to 120 tests per hour Special Analytical Rates: Please Inquire Specifically Samples Loading Capacity: 104 to 720 (autosampler model dependent) Dual Probe: Optional Sample Volumes: From 0.5 ml to 100 ml Identification: Alphanumerical/Bar Code (optional)
Reagent Drawer	Removable Drawer with Control Window Loading Capacity: Up to 5 Different Reagents Containers: From 250 ml to 1000 ml Leak Retention Volume: Made of Chemically Inert Plastic Material
Pump	Number of Pump Tubes: 13 per Console Automatic Valve: Yes Auxiliary Valve: Optional Leak Detector: Optional Automatic Shut Down: Yes Automatic Start Up: Yes Variable Speed: Yes Flow Rates: From 50 to 3,000 µl/minute

MEASUREMENT

Analytical Manifold	Injection, Dilution, Mixing, Incubation, Distillation, Dialysis, UV Digestion, Liquid / Liquid Extraction
Colorimeter	Standard Range: 340 - 1100 nm Type: Monochromatic or dichromatic Analog/Digital Converter Resolution: 24 bits (16.8 Million Points) Optical Path: From 5 to 50 mm Linearity: From 0 to 2.5 Absorbance Units Debubbling: Mechanical or software control; built-in bubble detector
Other Detectors	UV/Vis, flame photometer, fluorometer, electrodes, ... Our Analytical Solutions Department develops specific methods based on requirements.

SIZE

Dimensions	24 x 65 x 41 cm (L x W x H)
Weight	17 Kg