



FUTURA 3

THE ENHANCED VERSION OF THE BEST
CONTINUOUS FLOW ANALYZER



FUTURA 3

THE BEST CONTINUOUS
FLOW ANALYSIS TECHNOLOGIES
AVAILABLE ON A SINGLE CONSOLE



Taking advantage of a unique, modular design, each Futura 3 console is capable of running a variety of analytical methods using different CFA techniques. The integration of a pump, manifold, and detector into each console simplifies manifold changeover. Advanced features like automatic manifold washout and shut down enable unattended operation make the Futura 3 the most versatile analyzer for your laboratory.

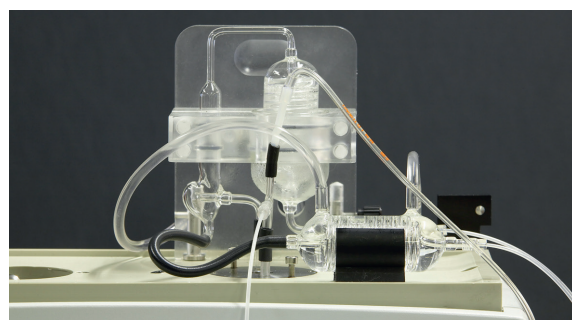
Consoles may be linked to run multiple parameters in parallel, doubling, tripling or even quadrupling overall system throughput. Up to 16 analytical channels in any combination can be run simultaneously.

From simple colorimetric assays to complex in-line distillations and digestions, users can pick from a library of both micro-bore and macro bore CFA methods. Whether your needs are environmental, industrial, food, or wine applications, the Futura 3 can provide an automated solution.



INTEGRATED MODULARITY MEETS MULTI-CHANNEL CFA PRODUCTIVITY

- From 1 to 16 Futura 3 consoles per system,
- Integrated console: reagent drawer, pump, manifold, heater, detector and diagnostics,
- Easy analytical manifold change over,
- Choose between Micro Flow, Macro Flow, or combine them both,
- Optional dual probe on all types of auto-samplers,
- Physical and software debubbling techniques available,
- Multiple path length flow cells (10 mm to 1m) for a wide variety of analytical ranges,
- Wide range of detector options.



Simple or double in-line distillation for measurement of Phenol Index and Cyanides in water.

ADVANCED AUTOMATION: IMPROVING EFFICIENCY AND PRODUCTIVITY

- Automation of complex, time consuming manual methods
- Inline Distillations
 - Ammonia, phenolics, cyanides, fluoride
 - Volatile Acidity (VA), Free and Total SO₂
- Inline Autoclave
- Inline UV Digester
- Inline extractions
 - MBAS Surfactants
- Automated programmable startup and shutdown
- Automated preparation of calibration standard solutions
- Automated pre and post-run dilutions of off-scale samples
- New type Autosampler:
 - Built-in ultrasonic homogenizer stirring & automatic syringe dilutor
 - Random Access

LOGICAL SIMPLICITY: EASY TO USE AND MAINTAIN

- User friendly software.
- Easy analytical manifold change over.
- Diagnostic color LCD screen provides easy system monitoring
- Very low consumption of reagents (minimum analytical cost).
- Fewer moving parts means simplified maintenance and less downtime.
- Integrated reagent drawer enables visual management of the reagents.
- Designed to accommodate the necessary containers for one or two chemistries, the drawer allows the user to store and continuously view the levels of all the reagents.
- Chemically inert, no corrosion, always clean, that's simplicity!



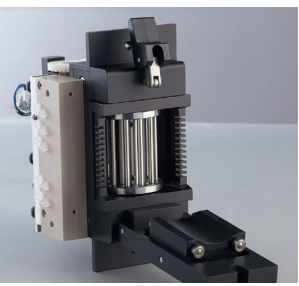
THREE-SPEED PUMP: THE HEART OF THE SYSTEM

Each Futura 3 analyzer can be configured for a wide range of applications thanks to its modular construction. Each console is a small, integrated CFA system, consisting of a multi stream peristaltic pump, independent diagnostics, detectors, heaters, manifolds and reagent drawers. The High Precision Peristaltic Pump (HP3) produces a highly stable flow for up to 13 sample or reagent streams ensuring optimum chemistry runs for any methodology.

Three-speed pump:

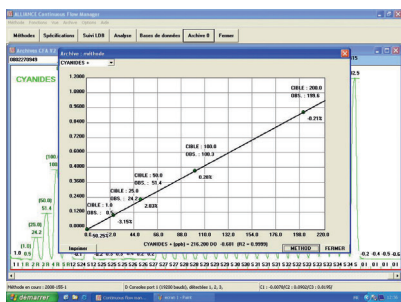
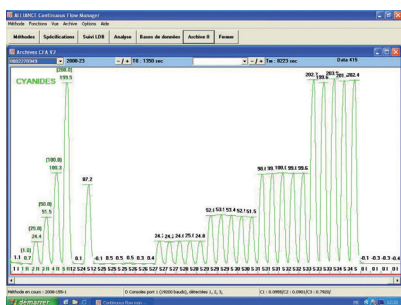
- low speed allowing Stand-by mode for low reagents consumption
- regular speed corresponding to Analysis mode
- high speed for a fast cleaning and stabilization of the system

The pump module can also be programmed to automatically engage or release the pump tube platen, (APS Automatic Pressure System) which enables automatic and unattended start up and shut down of the analyzer.



DEDICATED ANALYTICAL SOFTWARE

The Futura 3 software is designed to simplify your day to day operation. With bi-directional LIMS capabilities, it becomes an integral piece to improving workflow in your laboratory. The software provides a simple, elegant environment for the user to process samples. With a few mouse clicks, start a multiple parameter run that prepares calibration standards, runs samples and QC's, dilutes any off-scale samples, prints reports and QC charts, exports data to LIMS, washes out the manifold and shuts down for the evening. That's automation. During analysis, the software monitors the system's vital signs (heating bath temperature, voltages, detector outputs), and alerts the user to any problems. Such automated self-monitoring helps the user stay productive even in troubleshooting and provides the peace of mind to walk away from the analyzer.



COMPLIANCE WITH REFERENCE METHODS

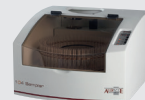
- Compliant to ISO, EPA, AFNOR, COFRAC...
- Fully compatible with the former Technicon® systems
- ISO 9001:2000
- GLP compliant and compatible with your LIMS

AVAILABLE ACCESSORIES AND MODULES TO IMPROVE PRODUCTIVITY

- Autosampler 30
Maximum capacity
30 samples.



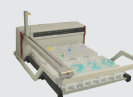
- Autosampler 104
Maximum capacity
104 samples.



- Autosampler XYZ
Maximum capacity
360 samples.



- Autosampler XYZ XL
720 positions



- Dilutor
Automatic preparation of standard solutions and automatic dilution of off scale samples.



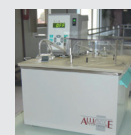
- UV digestion
In-line digestion.



- Distillation module
Simple or double in-line distillation.



- Autoclave
In-line digestion.



- Flame photometer
With interface single or dual channel.



- Fluorometer



- Reagents
A full range of ready-to-use reagents, for Environment (Selection Aqua) and Wine/Alcohols (Selection Oeno).

NEW: FULL AUTO MODULES

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

3 modules:

- Full Auto
- Full Auto detergents
- Full Auto TNTP



TECHNICAL SPECIFICATIONS

PRINCIPLE	Wet chemistry automation using continuous flow	
OPERATION	By multi parametric batches in parallel	
SAMPLES	Analytical rate	From 15 to 120 samples an hour
	Special analytical rates	Please inquire specifically
	Samples loading capacity	Depends on selected autosampler (range of 30 to 720 samples)
	Dual probe	Optional
	Sample volumes	From 0.5 ml to 100 ml
	Identification	Alphanumeric identification/Bar Code (optional)
REAGENT DRAWER	Removable drawer with control window	
	Loading capacity	Up to 5 different reagents
	Containers	From 200 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 (3 speeds: low, regular, high)
	Flow rates	From 50 to 3000 µl/minute
MEASUREMENT		
ANALYTICAL MANIFOLD	Injection, Dilution, Mixing, Incubation, Distillation, Dialysis, UV Digestion, Extraction liquid/liquid	
COLORIMETER	Standard spectral range	340 - 1100 nm
	Type	Monochromatic or dichromatic
	Analog/Digital Converter Resolution	24 bits (16.8 million points)
	Optical path	From 10 mm to 1 m
	Flow cell volume	From 1 to 150 µl
	Linearity	From 0 to 2.5 absorbance units
	Debubbling	Via mechanical or software control; hardware bubble detection
OTHER DETECTORS	UV/Vis, Flame photometer, Fluorometer, electrodes, and more... let us help develop a method that is specifically designed to meet your analytical needs	
DIMENSIONS	24 x 65 x 41 cm (L x W x H)	
WEIGHT	17 kg	



NEW:



You can order consumables and accessories
on our new webshop: www.webshop.amsalliance.com



www.amsalliance.com

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