# Aurora VERSA 110 Environmental Sample Workstation

As the health effects of environmental contamination are better understood, regulations become more stringent for persistent environmental organic contaminants in water and in processed or unprocessed foods including fish, oils and vegetables. Environmental agencies and the food processing industry are hard-pressed to detect and measure contaminations in water and food samples. Screening for diverse contaminants and over a large number of samples is cumbersome and error prone. Therefore, automation is necessary to efficiently aliquot samples and carry out high throughput repetitive liquid handling protocols in specific cuvettes for analyzers.

Aurora's VERSA<sup>™</sup> Automated Environmental Sample Processing Workstation is capable of aspirating environmental samples from tall tubes and dispensing them to specially designed recipient racks or carousels, including targets such as Konelab cuvettes. This workstation carries out user-defined dilutions, repetitive and complex environmental liquid handling processes. The long sampling needle of the workstation has a special sonication wash station for high purity cleansing that minimizes cross contamination. Automated performance using this high precision instrument has been determined to be significantly more accurate, sensitive and precise than traditional manual performance.

Samples provided in raw or pre-processed form within tall tubes are automatically converted for further downstream testing. Combining the automated Sample Processing Workstation with a chemical analyzer such as the Konelab analyzer provides the user with a complete analysis package from raw samples through to results.

VERSA 110 Sample

**Processing Workstation** 

# FEATURES & BENEFITS

- Small footprint 60 (W) x 60 (L) cm x 45 (H) cm
- Sonicating wash station cleans stainless steel sampling needle on the inside and outside
- Optional UV/HEPA/fluorescent light enclosure reduces further contamination
- Integrated wash and waste bottle detection sensors
- Extremely low coefficient of variation (CV%)
- Volume range: 1-1000 μL
- Ability to perform dilutions and sample transfer from donor rack to recipient rack using user-friendly VERSAware software
- Chemicals calibrated: Methanol, acetic acid, acetonitrile
- Built-in environmental liquid handling methodologies in software

### **APPLICATIONS**

- Sample preparation for downstream analyzers for organic contaminants such as:
  - Dioxins: phenols, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), nitrosodimethylamine (NDMA), dimethylamine (DMA), etc.
  - Processing of environmental samples:
    - Water
    - Soil
    - Food including fish, oils, vegetables, etc.
  - Applicable industries
    - Food processing
    - Soil testing laboratories
    - Environmental laboratories

# THROUGHPUT

- 19-39 sec/sample (with or without tip washing)
- Can dispense 70% nitric acid in low/high volumes

### SYSTEM CONFIGURATION

Single arm with stainless steel sampling needle is capable of dispensing volumes from 1-1000  $\mu L.$ 



Konelab Cuvette rack installed on deck

# iquid Handling

# **SOFTWARE & DECK**

Various tabs within the VERSA ware software window enhance the underlying versatility of the workstation by allowing the user to perform diverse liquid handling functions. Customized methodologies are easy to create and load into the library of stored protocols using import and export functions within the software.



# **SPECIFICATIONS**

VOLUME	1 μL to 1000 μL
ROBOTIC PRECISION	±50 μm (all axes)
DECK CAPACITY	<ul> <li>Sample rack for 100 sample tubes</li> </ul>
	•One (1) target carousel •Contact your authorized Aurora sales representative regarding other custom deck layouts
PIPETTING HEAD	Long sampling needle
<b>PIPETTE TIPS</b>	None required
DIMENSIONS	W 60 x L 60 x H 45 cm / W 23.6 x L 23.6 x H 17.7 in
WEIGHT	35 kg
THROUGHPUT	19-39 sec/sample (with or without tip washing); Transfers 100 sample
SOFTWARE	rack in approximately 1 hour depending on tip washing
	requirements
COMPUTER SYSTEM	Customized user-friendly VERSAware PCR software featuring simple
	on-screen prompts and drop-down menus
ACCESSORY OPTIONS	Desktop PC with LCD monitor and Windows operating software •Shaker(s) with or without cooler/heater •HEPA/UV/Fluorescent light enclosure

NOTE: Instrument specifications may change without notice as an ongoing effort of product improvement.

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