

**DESCRIPTION OF INTENDED
SINGLE SOURCE PURCHASE
(PUR 7776)**

AGENCY: Department of Environmental Protection

TITLE: Single Source with SEAL Analytical, Inc.

Short description of the commodity or service desired: Purchase of a SEAL AutoAnalyzer AA500, Segmented Flow Analyzer (SFA).

CONTACT

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Internal tracking number, if any: 2020SS013

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This description of commodities or contractual services intended for purchase from a single source is posted in accordance with Sections 120.57(3) and 287.057(3), Florida Statutes, and will remain posted for a period of at least 7 business days.

Commodity or Contractual Service Required (commodity or United National Standard Products and Services Code (UNSPSC), manufacturer, model, and description, as appropriate):

41104000: Sampling Equipment

41104900: Laboratory Filtering Equipment and Supplies

41105100: Laboratory Pumps and Tubing

41151600: Clinical Laboratory Instruments

41171500: Diagnostic Devices

Quantity or Term (as appropriate):

One-time Purchase of a SEAL AutoAnalyzer AA500, Segmented Flow Analyzer (SFA).

Requestor (division, bureau, office, individual, as appropriate):

Division of Environmental Assessment and Restoration, Florida DEP Laboratory, Chemistry Program

Performance and/or Design Requirements (e.g. intended use, function or application, compatibility, requirements; reference to policy, rule, statute or other act of the Legislature, etc., as appropriate):

The Chemistry Program intends to upgrade its Seal Analytical AA3 segmented flow analyzer, used for the analysis of orthophosphate, to an AA500 segmented flow analyzer. The new components (autosampler, pump, and detector) and software must be compatible with the existing manifolds. This upgrade is critical to maintain the laboratories capacity to meet the Division's needs for analytical support. Because of its age the existing detector will no longer be

serviced by the instrument manufacturer and the added functionality, including auto startup and shutdown, will improve efficiency of the analytical process.

Purchase of a SEAL AutoAnalyzer AA500, Segmented Flow Analyzer (SFA)

- 2 - Channel AA500 HR System w/ Auto Start-up and Shutdown (no manifolds)
- 1 - SEAL AS2 Random Access Sampler (Includes 1 pack of 1000 5mL Sample Cups)
- 1 - Pump with automatic engage and release platen for unattended operation
- NO Manifolds – FL DEP to supply MT16s previously purchased
- 2 - High Resolution Digital Photometer Detectors
- 2 - Flow cells
- 2 - Optical wavelengths, 880nm and 880 nm
- 1 - Complete method documentation as detailed above
- 1 - Set of reagent valves (for automatic switching between water and reagent)
- 1 - AACE Software
- 1 - System Accessory Kit
- 1 - Consumable Kit, including one change of pump tubes
- 1 - Electronic User Manuals for Hardware and Software

Package Price \$ 34,250.00

Premium Contract Customer Discount – 10% - \$3,425.00

Installation & Training package, 3 Days on site: \$3,500.00

AA500 Training - The AA500 system and software design has been strongly influenced by listening to SEAL users and regulatory requirements. As a result, the system is easy and intuitive to use. An on-site training course is conducted at installation covering the following aspects of the system: Introduction; Hardware overview; Principles of operation; Daily routine; and System software operation, including: Analysis parameters, Run parameters, QC definition, Routine running, Data storage routines LIMS interface; Analyzer routine maintenance; Troubleshooting/corrective maintenance; Method Applications.

Upgrade to AS-4 Sampler (quote Option 4): \$2,000.00

Warranty, 12-month parts & labor included.

Freight and Handling: \$800.00

Discounted Offer Price: \$ 37,125.00

The all new AA500 incorporates the same principles employed in a basic Segmented Flow Analyzer (SFA) system, of an autosampler, a peristaltic pump, a chemistry manifold, a detector and data acquisition software. Sample and reagents are pumped continuously through the chemistry manifold. Air bubbles are introduced at regular intervals forming unique reaction segments which are mixed using glass coils. Glass is ideal, as it is inert, stays clean and enables easy visual checks.

Detailed Specifications: Sampler Module AS4

- Holds 360 sample cups (0.5mL or 2mL) or 240 cups (4mL or 5mL).
- Other racks are available for different sample tubes.

- User-defined special sample racks can be used.
- Separate 22 position rack for calibration and quality control standards.
- Sampler can access any cup at any time. This enables duplicate sampling and automatic repeats of off-scale or carryover-affected samples.
- Calibration and quality control standards can be taken from the same cup as often required.
- Constant inter-sample air bubble size at any cup position.
- Programmable speed.
- Stainless steel and PEEK samples probes for all sample types, including acidic samples.
- Optional: Syringe diluter for off-scale dilutions and automated standard preparation
- Optional: air or paddle mixing
- Optional: multiple probes (up to 4) on one sampler

AA500 Pump

- Automated and unattended Platen engage and release for remote system start up or shutdown
- Capacity for 34 pump tubes plus up to 8 air supply tubes.
- Can be switched to high speed for fast start-up and wash-out.
- Speed can be controlled on the pump or from the computer.
- Computer-controlled intermittent mode to save reagents after a run.
- Digitally controlled air injection system is synchronized with pump rollers to ensure regular sized and spaced air bubbles, giving reproducible segment volume for high analytical precision.
- Leak detector automatically stops the pump motor and sends a signal to the PC if a leak occurs.
- Accessory kit with special lubricant included.
- Utilizes 3 shoulder pump tubing from SEAL Analytical
- Optional valves for automatic dilution.
- Optional valves for automatic reagent wash-out

A500 High Performance Chemistry Module

- Method documentation includes instructions for preparation of standards, performance data, reagent safety data, manifold description with part numbers and a list of spares and consumables with part numbers.
- Hydraulic components are glass, chosen for its inert chemical properties. Mixing coils are mounted on the surface of the method cartridge for easy operator verification of correct performance.
- Hydraulic component internal diameter is 2.0 mm to limit the risk of blockage from dirty samples.
- On-board heaters have high accuracy proportional control and user-replaceable coils.
- Leak detector prevents damage to the analyzer in the event of chemical spills.
- Full software control
- Optional dialyzer is available to eliminate background interference
- Optional distillation for inline sample preparation
- Optional digestion for inline sample preparation
- Optional E-valve for Cd column for Nitrate reduction
- Optional integrated auto valves

AA500 High Resolution Photometer

- Dual Beam (LED light source) detection system with real time baseline correction for high stability.
- Reduced maintenance with LED light source lasting up to 50,000 hours.
- No de-bubbling necessary – software de-bubbling algorithm performed, hence reducing carryover and hydraulic noise.
- Baseline and sensitivity setting controlled automatically from PC
- No user adjustment needed when new lamp or flow-cell installed.
- 10mm, 30mm, 50mm and 500mm flow-cells can be fitted according to method sensitivity requirements.
- Flow-cell and transmission tubing are contained inside the photometer housing for optimum temperature equilibration and added protection of the flow-cell and connections.
- Accessory kit included with spare lamp and special tools.
- Extended wavelength range 250-880nm for extended sensitivity at low- to mid-wavelengths.

AAce Software and Data Management:

The AACE software is used to automate the AA500 and acquire data. The software is capable of exporting directly into Excel format for ease of use or connecting to a LIMS. AACE software is compatible with Windows 10.

Intended Single Source:

SEAL Analytical, Inc.

Estimated Dollar Amount:

\$37,125.00

Justification for single source acquisition (what is necessary and unique about the product, service or source; steps taken to confirm unavailability of competition, as appropriate):

The Florida DEP Laboratory provides the department and other government agencies the highest quality environmental analytical services available. To meet the goals of the department, the laboratory uses sophisticated, state-of-the-art analytical instrumentation and offers additional services of technical guidance and review, data interpretation, field sampling, and contract management for the department, state water management districts, other state agencies and commissions, as well as local, state and federal law enforcement agencies. Participation in proficiency evaluation studies along with continually updating and improving methodologies for analytical measurements and developing new techniques for analyzing environmental contaminants are important parts of laboratory operations. Few environmental laboratories in the United States rival the DEP Laboratory in terms of range of services, quality and sophistication.

SEAL Analytical, Inc. is the global manufacturer and supplier of what was Bran+Luebbe (formerly Technicon) continuous flow analyzers in the USA. This includes the QuAAtro39, AA3, AA500 and AA100. They are also the sole authorized provider of genuine parts, software, supplies, service, training and support for the SEAL/Bran+Luebbe instruments (i.e. AutoAnalyzer II/3, TrAAcs and QuAAtro) in the United States.

SEAL Analytical, Inc. does not supply any competing companies with genuine parts, software and consumables for resale nor do we authorize any other service provider to service our analyzers.

SEAL commits to providing an on-going improvement process to our clients. They serve out-of-production units and, when parts or modules are no longer available, and provide a cost effective proposal to move to the next generation, removing retraining costs and ensuring that existing inventory of consumables do not become redundant.

Approved By (names & titles, as appropriate, e.g., requestor, requestor management, information systems, budget, purchasing):

Rachel Anderson, Administrative Assistant II

Colin Wright, Program Administrator

Trenetta L. Wilson, Government Operations Consultant II

David D. Whiting, Deputy Director

Belinda Croft, Purchasing Specialist Supervisor

Prospective vendors are requested to provide information regarding their ability to supply the commodities or contractual services described. If it is determined in writing by the agency, after reviewing any information received from prospective vendors, that the commodities or contractual services are available only from a single source, the agency shall: provide notice of its intended decision to enter a single-source purchase contract in the manner specified in Section 120.57(3), F.S.