

# SIRCO SERIES 4000 BVS OUTDOOR SAMPLER

## Specification PVS-4100

### PART 1: GENERAL

#### 1.01 SUBMITTALS

- A. Submit product literature that includes information on the performance and operation of the sampler, dimensions and weights, and functions of the controller.
- B. Upon request, provide shop drawings that clearly identify sampler dimensions and specifications.

#### 1.02 QUALITY ASSURANCE

- A. Manufacturer shall have at least twenty-five (25) years experience in the production of effluent/liquid samplers, and shall provide references.
- B. Manufacturer shall be located within the USA and/or Canada.

### PART 2: PRODUCTS

#### 2.01 PVS PORTABLE SAMPLER

- A. Automatic Portable Wastewater Sampler shall be vacuum pump/compressor type with multi-function input controller, acrylic metering chamber, polypropylene sample containers, manufactured by Southwell Controls Ltd.
- B. Controller program types shall include composite, multi-composite, consecutive, daily cycle, and timed step.
- C. Controller shall be capable of initiating a sample via interval time, momentary external contact, integration of 4-20mA flow signal, pulse count or manual.
- D. Controller shall be capable of incorporating a start delay based on time/day using a real time clock, pulse count, integration of a 4-20mA flow signal, momentary external contact or level control (contact duration).
- E. Sampler shall be **composite** with samples deposited to a single sampler container; or **discrete** with samples deposited to multiple sample containers.
- F. 500cc Metering chamber shall have 3/8" or 5/8" ID tubing inlet. Twenty-five (25) foot PVC intake tubing with sinker to be included.
- G. Any user parts that may require servicing shall be easily removable (under 20 seconds), e.g. metering chamber, tubing.
- H. Vacuum system of sampling shall include a purge of air to clear both chamber and intake tube both before and after taking the liquid sample. This will prevent cross-contamination of samples.
- I. Sampler system shall be built so that all parts can last for multiple years without replacing, and no parts that wear down quickly. This includes all tubes and pump components, which shall not need replacing for a minimum of three years (minimum warranty period).
- J. Sample containers for composite sampling shall include one 9L polyethylene or polypropylene container. Sample containers for discrete sampling shall include 24 x 500cc polypropylene containers.

- K. Enclosure shall be formed with a medium-density linear polyethylene, designed to handle tough environmental challenges and weathering.
- L. Sample chamber shall have a cooling system consisting of a hub with insulation ring for packed ice.
- M. Weight of sampler shall be 26 Lbs (11.8 kg) without battery.
- N. Power Supply shall have universal input voltage of 110VAC to 240VAC, 50-60Hz, and shall be fully resettable, overload and short-circuit protection.
- O. Sampler shall be equipped with an internal battery, 17AH, which shall be capable of powering the sampler for seven days of continuous use (1x per hour with 10 second purge time).
- P. Available options shall include pressure/vacuum gauge, quick-connect, SS Suspension Harness, SS sinker strainer, moisture sensor, precipitation sensor, external signal cable, or a hand cart system.
- Q. Sampler shall be capable of sampling at speeds in excess of 3.5 ft/sec at 200 feet of horizontal draw. Sampler shall be capable of sampling at speeds in excess of 3 ft/sec at 25 feet of vertical draw, and shall be capable of sampling up to 28 feet vertically. Sampler shall be capable of sampling at 5 ft/sec at 15 ft vertical or 100 ft horizontal.

## 2.02 FUNCTION

- A. Sampler is to be used for the purpose of taking liquid samples automatically for later laboratory analysis.

## 2.03 MANUFACTURER

- A. All samplers shall be SIRCO Samplers of the series PVS 4100 as manufactured by Southwell Controls Ltd., in the USA and/or Canada, or approved equal.

## **PART 3: EXECUTION**

### 3.01 INSTALLATION

- A. Sampler shall be installed in accordance with manufacturer's written Instruction and Operation Manual.

### 3.02 MANUFACTURER'S WARRANTY AND CUSTOMER SERVICE

- A. Manufacturer's authorized representative shall be available for customer service during installation and start-up, and to train personnel in the operation, maintenance and troubleshooting of the sampler.
- B. Manufacturer will give telephone support for troubleshooting or difficulties for the lifetime of the product.
- C. Sampler shall be under a three (3) year warranty for all parts, with an optional extended warranty of five (5) years.