

# SIRCO SERIES 4000 BVS OUTDOOR SAMPLER

## Specification BVS-4300

### 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 BVS OUTDOOR SAMPLER

- A. Automatic Outdoor 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; 1000cc metering chamber shall have 3/8" ID tubing. 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 (3) years (minimum warranty period).
- J. Sample compartment will be refrigerated or non-refrigerated, as required. See-through glass-door refrigeration with digital temperature gauge shall be available upon request. All refrigeration units shall be easily removable and replaceable.

- K. Sample containers for composite sampling shall include one 9L or 20L polyethylene or polypropylene container, or a variety of glass containers from 1L to 20L. Sample containers for discrete sampling shall include 24 x 500cc polypropylene containers, or 12, 8, 6, 4, 3 or 2 glass containers of varying sizes.
- L. Upper control section enclosure shall be NEMA 1 general purpose, powder-coated steel.
- M. Outdoor enclosure shall be NEMA 3 with optional insulation, powder coated steel or optional stainless steel.
- N. Enclosure structure shall include slide-out instrument panel, and lockable door.
- O. Power Supply shall have universal input voltage of 110VAC to 240VAC, 50-60Hz, and shall be fully resettable, overload and short-circuit protection.
- P. Available options shall include pressure/vacuum gauge, quick-connect, heater with thermostat, cabinet circulation fan, overflow protection probes, common sampler fault output, external valve control output, SS sinker strainer, internal battery with charger, or a complete dual station unit with two metering chambers, two sample containers and one or two controllers.
- Q. Available optional materials shall include glass metering chamber, glass sample container(s), Teflon chamber cover, Tygon inlet tubing and silicone discharge tubing.
- R. 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 BVS 4300 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 excluding refrigerator, with an optional extended warranty of five (5) years. Refrigerator component shall have a one (1) year warranty.