

Point Source Bailer

Model 429

Point source sampling is ideal for obtaining high quality, representative samples of groundwater from specific depths. It allows the collection of water that has just flowed into a well at the desired sampling point. This can avoid purging and disposal of purged water.

The Point Source Bailer can be used to profile an open borehole or screened well, collecting samples from distinct levels or points of inflow. Sample biases due to mixing of the sample with water from different levels in the well is minimized.

For point source sampling, Solinst also manufactures the Model 425 Discrete Interval Sampler which is pressurized before lowering into the well. This prevents water from entering the sampler until the desired depth has been reached. (See Model 425 Data Sheet.)

Point Source Bailer Design

The Solinst Point Source Bailer has dual ball valves, top and bottom. It is a simple and cost effective device for aquifer profiling. It needs no costly or hard to transport ancillary equipment, making it ideal for point source sampling in hard to access locations.

The miniature 0.5" (12.7 mm) diameter model is ideal for use in narrow tubes and direct push devices.



Point Source Bailers come in standard lengths of 2 ft. (610 mm), 3 ft. (910 mm), or 4 ft. (1220 mm)

Bailer Capacity			
O.D. inch	Capacity US oz	O.D. mm	Capacity ml
2 ft. Length			
0.5	1.7	12.7	50
1.0	7	25.4	210
1.5	13	38.1	390
2.0	29	50.8	850
3 ft. Length			
0.5	2.7	12.7	80
1.0	11	25.4	330
1.5	23	38.1	680
2.0	47	50.8	1390
4 ft. Length			
0.5	3.7	12.7	110
1.0	15	25.4	450
1.5	33	38.1	970
2.0	65	50.8	1930

Method of Operation

The bailer is lowered slowly to the desired sample depth on a support line. As the bailer is being lowered, both ball valves open, allowing water to flow through the sampler.

On reaching the sampling depth, the bailer is raised slowly and steadily. The weight of water and upward movement of the bailer keep both ball valves closed. The top ball valve prevents the sample in the bailer from mixing with water at higher levels in the borehole. The bottom valve prevents the sample from leaking out of the bailer.

Once at the surface, the bailer is emptied by opening the top vent, and allowing the water to drain slowly through the sample release device into a sample container.

The Point Source Bailer can then be decontaminated before taking the next sample.

Specifications

The Solinst Point Source Bailer is constructed of 316 stainless steel with PTFE ball valves, and o-rings. The sampler comes complete with a stainless steel sample release device to minimize loss of volatiles during transfer to the sample container.

The Solinst Model 103 Tag Line is recommended as a support line for the Point Source Bailer. There is the option of laser marked cable (marked every 1/4 ft. or 5 cm) or laser marked flat tape (marked every 1/100 ft. or each mm), mounted on an easy to use reel. (See Model 103 Data Sheet.)

®Solinst is a registered trademark of Solinst Canada Ltd.