

HIRST VOLUMETRIC SPORE SAMPLER

7 DAY & 24 HOUR RECORDING VERSIONS

- Continuous sampling up to 7 days without attention
- Built in vacuum pump
- Precision 7-jewel clock movement
- Interchangeable orifices
- 24-hour sampling option
- Reliable and simple operation
- Mains, battery or combined mains or battery option



Standard Of Reference

Built and developed with the assistance of scientists closely associated with problems relating to airborne particles such as fungus spores and pollens, the sampler has proved to be a standard of reference throughout the world. Although the instrument compares closely to the trap described by Hirst in 1952 (Ann app. Biol 39 pp. 257-265) its performance has been enhanced by the use of interchangeable orifices to improve the trapping efficiency for particles in the range 1-10 μ diameter.

Continuous Sampling

The principal advantage of the Burkard instrument is the continuous recording facility for long periods. Spores are impacted on adhesive coated transparent plastic tape (Melinex) supplied and supported on a drum with a fixed circumference driven by a 7-jewel clockwork movement. This assembly is mounted on a close fitting slide, which assists the user when inserting the drum with mounted tape into the main body of the instrument. The large vane makes the sampler sensitive to small changes in wind direction.

Mains Or Battery

Vacuum pumps are mains or battery driven and are interchangeable. Adjustment of the 10-litre throughput is possible with either potentiometer or metering screw. A mains and battery pump option allows operation from either power source without changing the pump motor.

Solar Power Option

The spore sampler solar power kit is a compact and highly efficient solar pack that can support continuous operation in all weather conditions in any country. The standard solar panel is 330mm x 1300mm x 35mm and outputs 55 watts of power. It can be housed in a aluminium frame for floor or roof mounting or pole mounted for free standing operation. The kit includes a clamp & controller which allows operation over night from the charge it receives during the day providing continuous 24 hour operation. The Solar power kit provides the answer to the free standing power requirements of the Burkard spore sampler for a minimal cost.

Construction And Equipment Details

To avoid corrosion against normal weather conditions all parts are protected by hard stove enamel or anodising. The use of aluminium in the design and construction of the spore trap makes it light weight and readily portable for field use. Drum changing on site is a quick and simple operation. Simply by withdrawing the combined drum slide and chamber top access is gained for the replacement of the drum and adjustment of the flow orifice. 24-hour clock units or the alternative slide assembly for 24-hour trapping on microscope slides is also offered.

General Specification

Sampling duration	7 days standard
Or	24-hours on to microscope slides using alternative slide assembly.
Drum movement	2mm/hour 7-jewel-clockwork driven
Throughput at orifice	10 litres/minute
Standard orifice size	2mm x 14mm
Impaction tape	Clear Melinex: 200 gauge
Overall height of sampler	94cm
Working area of sampler	0.882 sq. metre through 53cm radius
Power requirements	220/240V 50Hz, 110V 60Hz
Battery supply	12V
Net weight	16 Kg
Gross weight	30 Kg
Case dimensions	60 x 70 x 80cm

Standard Equipment

- Trimming block for Melinex tape
- 1 roll double sided tape
- 1 roll Melinex tape
- 1 Kg Gelvatol
- Stand for coating Drum
- Carrying box

Extra Equipment

- Alternative orifice - 14mm x 2mm reducing to 0.5mm.
- Flow Meter
- Additional Drum
- 24-hour slide assembly for sampling on to microscope slides



Ordering Information

Product Code	Description
BS02224	24-HOUR RECORDING VOLUMETRIC SPORE SAMPLER, 12VDC
BS02176	24-HOUR RECORDING VOLUMETRIC SPORE SAMPLER, 110VAC
BS02169	24-HOUR RECORDING VOLUMETRIC SPORE SAMPLER, 240VAC
BS02231	24-HOUR SPORE SAMPLER, DUAL VOLTAGE 12VDC/110VAC
BS02232	24-HOUR SPORE SAMPLER, DUAL VOLTAGE 12VDC/240VAC
BS02225	7-DAY RECORDING VOLUMETRIC SPORE SAMPLER, 12VDC
BS02175	7-DAY RECORDING VOLUMETRIC SPORE SAMPLER, 110VAC
BS00285	7-DAY RECORDING VOLUMETRIC SPORE SAMPLER, 240VAC
BS02178	7-DAY SPORE SAMPLER, DUAL VOLTAGE 12VDC/110VAC
BS02177	7-DAY SPORE SAMPLER, DUAL VOLTAGE 12VDC/240VAC

The company reserves the right to make changes to the specification without notice.

