

HiVol 3000 PUF Sampler

The HiVol 3000 PUF Sampler provides a flexible platform for sampling organic compounds and monitoring basic meteorological parameters.

The PUF utilizes poly-urethane foam (PUF) to collect particulate matter and store it in a sterile environment for later analysis.

The HiVol 3000 PUF unit is a reliable, durable and proven sampler using volumetric flow control to maintain consistent flow and collect a truly representative sample of particulate matter.

Optional attachments allow the sampler to measure wind speed and direction which can then be used as triggers to capture other meteorological parameters.



Reliable sampling

- Volumetric flow control automatically corrected to standard reference temperature
- Industrial brushless motor (100 000 hours continuous field operation)
- Weather-proof marine quality anodised aluminium cabinet
- Automatic supply voltage monitoring and shut-down facility prevents damage to instrument

Directional sampling

- Wind direction and speed used to activate/de-activate sampler
- Fence line monitoring available with a network of samplers

Enhanced communication

- RS232 output for data collection and networking
- Filter block and instrument error alarms available to email & sms
- Total control of instrument remotely from PC
- Simple programming of sampling periods, including daily and weekly programs, with in built '1-in-X day' sampling capability

Specifications

Operation:	Microprocessor controlled (internal data logging)
Pump/Motor:	Side channel blower driven by an asynchronous squirrel cage motor
Flow controller:	Variable frequency drive
Volumetric flow range:	Nominal 10 - 20 m ³ /hr
Vacuum capability:	175 mBar max
Flow accuracy:	Better than ± 0.2 m ³ /hr
Flow repeatability:	$\pm 5\%$ of reading
Construction:	Anodised aluminium and Stainless steel
Filter size:	100mm diameter element Replaceable PUF glass cartridge
Construction:	Anodised aluminium cabinet with SS fasteners
Dimensions:	15 in (W) x 15 in (D) x 47 in (H) plus inlet (380 x 380 x 1200mm)
Weight:	100 lbs plus inlet weight (45kg)
Operating voltage:	115V 60Hz (optional 200-240V $\pm 10\%$ 50/60 Hz)
Running current:	4A nominal (depending on filter loading & flow rate) Start up current no more than 4A.
Temp measurement range:	0 - 50°C
Barometric pressure:	600 - 900 mmHg ± 4 mmHg

Communications/Data logging

No. of readings:	150 (averaging period is user selectable, for example 75 hours of 30min averages)
External inputs:	1 x wind direction sensor input (10k potentiometer) 1 x wind speed sensor input (contact closure) or alternatively 1 x spare contact closure input (eg. Tipping bucket rain gauge)

Options

- Calibration plate
- Field calibration transport case
- Manometer
- WS/WD sensors
- RH Sensor
- Muffler

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