

HiVol 3000 MegaVol

HIGH VOLUME SAMPLER

The HiVol 3000 MegaVol Particulate Sampler performs remote unattended sampling of particulates and is ideal for heavy metal and radiation exposure monitoring.

The HiVol 3000 MegaVol is capable of a very high flow rate (120-150 m³/hr) the increased flow rate allows representative particulate samples to be collected in shorter time periods (more samples collected per week) or to collect a larger quantity in the same time period (especially for trace levels) than a standard TSP sampler.

The MegaVol is therefore ideally suited for sampling particulates that make up a small percentage of the total sample (heavy metals, radioactive particulates, etc.) and provides laboratories with sufficient material to perform quantitative and qualitative analysis.

Optional attachments allow the sampler to measure wind speed and direction which can then be used to trigger sector selectable sampling (e.g. fence-line monitoring).

The sampler software can also double as a remotely accessible data logger for simple weather monitoring (wind speed and direction, temperature, humidity and rainfall).



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
- External trigger (0-5 VDC) can be used for activating sampling program.

ENHANCED COMMUNICATION

- RS232 output for data collection and remote communication
- Filter blocked and instrument error alarms
- 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 induction motor (brushless)
Flow controller:	Variable frequency drive
Volumetric flow range:	Nominal 120 - 150 m ³ /hr
Vacuum capability:	130 mBar max
Flow accuracy:	Better than ± 0.2 m ³ /hr
Flow repeatability:	± 1 % of reading
Construction:	Anodised aluminium & stainless steel fasteners
Filter size:	100mm diameter filter Replaceable XAD glass cartridge element
Dimensions:	456 mm (W) x 456 mm (D) x 1480 mm (H) including TSP inlet
Weight:	65 kg plus inlet weight
Operating voltage:	200 - 240 V + 10 % 50/60 Hz
Power consumption:	3500 VA nominal (depending on filter loading & flow rate)
Temp measurement range:	0 - 50 °C
Barometric pressure:	600 - 900 mmHg ± 4 mmHg

COMMUNICATION & DATA LOGGING

Number of readings

- 150 (averaging period is user selectable, e.g. 75 hours of 30 min averages)

External inputs

- 1 x wind direction sensor input (10k potentiometer)
- 1 x wind speed sensor input (contact closure)
- 1 x spare contact closure input (e.g. tipping bucket rain gauge).

Output

- RS232C

OPTIONS

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

