

# MegaVol 3000 Particulate Sampler

The MegaVol 3000 Particulate Sampler provides a flexible platform for remote unattended sampling of heavy metal and radiation exposure in the environment.

The MegaVol has an very high flow rate (120-150m<sup>3</sup>/hr) which allows it to sample a larger sample of air than a standard unit, and accumulate pollutants that make up a small percentage of pollution (such as heavy metals, radioactive particulates).

This accumulated sample provides laboratories with sufficient sample to perform quantitative and qualitative analysis and allows either increased sampling periods (more per week) or greater accuracy in measurements (especially for trace levels).

Optional attachments allow the sampler to measure wind speed and direction which can then be used as triggers to start sampling and fence-line monitoring.



## Features

- Optional Iodine trap for Radiation monitoring
- Sampling of Total Suspended Particulates (TSP)
- Advanced active volumetric flow control system automatically corrected to STP conditions.
- Ability to perform conditional sampling based on wind speed and direction measurements or time based sampling (fence line monitoring).
- RS232 output for data collection and networking.
- Internal data logging of WS/WD, temperature, pressure and flow.
- Simple programming of sampling periods, including daily and weekly programs, with in built '1-in-X day' sampling capability.
- Automatic supply voltage monitoring and shut-down facility prevents damage to instrument.
- Weather-proof marine quality anodised aluminium cabinet.
- Sampler setup via four-line LCD display and keypad.

## Specifications\*

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<b>Operation:</b>	Microprocessor controlled with internal data logging
<b>Pump/Motor:</b>	Side channel blower driven by an induction motor (brushless)
<b>Flow controller:</b>	Variable frequency drive
<b>Volumetric flow range:</b>	Nominal 120-150 m <sup>3</sup> /hr
<b>Vacuum capability:</b>	130 mBar max at 150m <sup>3</sup> /hr
<b>Flow accuracy:</b>	± 2m <sup>3</sup> /hr
<b>Flow repeatability:</b>	± 1% of reading
<b>Construction:</b>	Anodised aluminium and Stainless steel
<b>Filter size:</b>	250 x 200mm rectangular element
<b>Construction:</b>	Anodised aluminium cabinet with SS fasteners
<b>Dimensions:</b>	456mm (W) x 456mm (D) x 1480mm (H) including TSP inlet
<b>Weight:</b>	65kg approx.
<b>Operating voltage:</b>	200-240V ± 10% 50/60 Hz (std)
<b>Power usage:</b>	3500VA nominal (depending on filter loading & flow rate)
<b>Temperature</b>	
<b>Measurement Range:</b>	0-50°C
<b>Barometric pressure</b>	
<b>meas. Range:</b>	600-900 mmHg ± 4mmHg
<b>No. of readings:</b>	150 (averaging period is user selectable, for example 75 hours of 30min averages)
<b>External inputs:</b>	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)
<b>Options:</b>	Calibration plate WS/WD sensors RH Sensor Muffler Field calibration transport case Manometer

\* Specifications are a guide only and subject to change without notice at any time

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