

# **HiVol 3000**

# HIGH VOLUME AIR SAMPLER



The HiVol 3000 particulate sampler performs remote unattended sampling of  $PM_{2.5}$ ,  $PM_{10}$  or TSP along with basic meteorological parameters.

The HiVol 3000 incorporates advanced programming functions and electronic volumetric flow control to maintain a 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 to trigger sector selectable sampling (e.g. fence-line monitoring).

## **APPROVALS**

- US EPA Manual Reference Method: RFPS-0706-162 approval for PM.
- Meets Australian standard for PM, and TSP monitoring
- Only high volume air sampler with CE and C-tick approval
- Manufactured under ISO9001.

# **RELIABLE SAMPLING**

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

## **DIRECTIONAL SAMPLING**

- Wind direction and speed used to activate/de-activate sampler
- External trigger (o 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 45 - 96 m³/hr

Vacuum capability:140 mBar maxFlow accuracy:Better than  $\pm$  1 m³/hrFlow repeatability: $\pm$  1 % of reading

**Construction:** Anodised aluminium and stainless

steel fasteners

**Filter size:** 250 x 200 mm rectangular element **Dimensions:** 380 x 380 x 1200 mm plus inlet

Weight: 45 kg plus inlet weight Operating voltage: 200 - 240 V + 10 % 50/60 Hz

(optional 115 V 60 Hz)

**Power Consumption:** 1500 VA Max (depending on filter

loading & flow rate)

Temp measurement

range: o - 50 °C

**Barometric pressure:** 600 - 900 mmHg ± 4 mmHg

## **COMMUNICATION & DATA LOGGING**

#### No. of readings

• 150 (user selectable averaging period, e.g. 75 hrs of 30 min averages)

## **External inputs**

- ullet 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**

- $\bullet$  PM  $_{\!\scriptscriptstyle 10}$  , PM  $_{\!\scriptscriptstyle 2.5}$  or TSP size selective inlets
- Calibration plate and field calibration transport case
- Manometer
- WS/WD sensors
- RH Sensor
- Muffler.



