

AIR SAMPLER

Sr#	Description	Qty
1	Outdoor High Volume Fixed Air Sampler	6
2	Accessories/Spare Parts for Air Sampler Please refer to the attached specifications document for details	
3	Filter Paper, 100 Pieces per Box	25
Notes: <ul style="list-style-type: none">a. Please refer to the attached technical specifications for details of the requirement.b. Reference Manufacturers:<ul style="list-style-type: none">i. Global Air Sampler HV Environmental Air Sampling System (Part No. GAS-70242DTE), orii. F&J Specialty Products, USA or Equivalent, oriii. Equivalent models from other reputed manufacturers will also be acceptable.		

AIR SAMPLER

TECHNICAL SPECIFICATIONS

AIR SAMPLER

Outdoor High Volume Fixed Air Sampler:

- **Unit type:** High volume, continuous and periodic use, Outdoor and Fixed unit
- **Automatic flow rate control:** system microprocessor (or PLC) monitors flow rate relative to reference temperature and pressure which controls the motor speed.
- **Sampling mode:** volumetric flow and mass flow
- **Filter paper holder size:** for **24 inch x 24 inch** (60cm X 60cm) filter paper
- **Sensors:** Flow rate, temperature, inlet, differential and ambient pressure sensors
- **Alarm:** flow, inlet pressure, temperature, inlet pressure drop
- **Data output:** RS-232 ports, USB connector, etc.
- **Compliance:** meet or exceeds USEPA's 40CFR50, Appendix B

Enclosure/Body Specifications:

- **Body:** powder coat painted/anodized aluminum housing with removable hinged cover, IPX3 rating
- **Locking facility:** for both enclosure door and lockable latch on top-cover for filter media
- **Fixing of unit:** anchor bolt holes at the bottom of all four legs for anchoring to concrete pad

Air Flow Rate Specifications:

- **Air flow rate range:** 20-70 SCFM
- **Default air flow rate:** 40 SCFM
- **Volumetric flow controller and sensor accuracy:** $\pm 3\%$ of full scale
- **Flow rate calibration:** manual and automatic calibrate-able by user. Auto zero calibration of flow sensor

Display and Input Specifications:

- **VFD/LED/LCD display with input keys:** for monitoring (flow rate, total flow, elapsed time etc.), calibration (flow rate), and timer settings
- **Operation mode (adjustable):** Continuous (elapsed time, total volume) or Periodic (Weekly, cyclic)
- **Programmable ON/OFF timer:** for 7 days of week
- **Automatic shutdown mode:** by time or volume

Blower Specifications:

- **Type:** 03 stage vacuum blower, brushless, electronic motor speed control
- **Vacuum capacity:** at-least 120 inches of water

Power Requirements:

- **Input:** 220-240 VAC, 50/60 Hz, single phase
- **Electronics and motor protection:** combination of circuit breaker and fuse

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Filter Paper Specifications:

- **Grade:** 5211
- **Filter type and Properties:** borosilicate glass microfiber paper, laminated, heat resistant
- **Filter size:** 24 inch x 24 inch and 0.015 inch thickness
- **Required Filtration:** 0.3 micron
- **DOP Smoke Penetration for 0.3µm:** 0.015% (or DOP Efficiency=99.98%)
- **Efficiency:** HEPA quality

Data Acquisition Software Program:

- Data storage of all key parameters of sample events and transfer to connected PC
- Report writing, Alarm notifications and Data transmission form field

Digital Calibrator:

- **Standalone operation:** VFD/LED/LCD display with input keys
- **Air flow calibration range:** 10 to 50CFM
- **Input voltage:** 220-240 VAC, 50/60 Hz
- **Flow display:** CFM, LPM, CMH
- **Flow rate tolerance:** $\pm 1-2\%$ of full scale
- **Volumetric flow and mass flow**
- **Semi-automatic/automatic calibration and verification**

Note: Calibrator must be compatible with air sampler unit directly; otherwise necessary adapter/module/couplings must be included.

Accessories/Spare Parts Compatible with Air Sampler:

- Data acquisition software program (Qty: One)
- Digital calibrator for air sampler (Qty: One)
- Calibrator adapter plate/module/couplings [if required] (Qty: 2)
- Spare Blower/motor with mounting setup (Qty: 3)
- Spare Electronic modules 220V (Qty: 3)
- All sensors used in air sampler [spare], e.g. Flow rate, temperature, Thermistor /Thermocouple, inlet, differential and ambient pressure sensors, etc. (Qty: 4 each)
- Spare Circuit breaker and Fuse (Qty: 10 each)
- Spare Unit's replacement power supply (Qty: 0)
- Spare Filter holder 24" x 24" (Qty: 3)
- Spare Necessary seals/gaskets for filter holder (Qty: 20)
- Electrical surge protection for air sampler, 220V (Qty: 6)
- Any other spares necessary for unit operation or maintenance

MAKE: Global Air Sampler HV Environmental Air Sampling System (Part No. GAS-702424DTE), F&J Specialty' Products, USA, or Equivalent

- Documentation in English (installation, operation and maintenance manuals)