### PORTABLE ULTRA FINE PM 1.0 SAMPLER ECOTECH MODEL AAS 271-1.0

#### **BACKGROUND**

European Union has already standardized design of PM1.0 Sampler. Ecotech has adopted these designs and developed Portable PM1.0 Sampler to meet air quality monitoring requirements. In the impactor air enters and pass through multijet (8 Nos) at total flow rate of 1 m<sup>3</sup>/hr to get PM1.0 dust on the filter and coarse dust more than 1 micron remain on the greased impaction plate fitted in impactor under these eight jets of the impactor.

Ecotech AAS 271-1.0 is fitted with brushless and noiseless rocky piston pump assembly where sampling rates of 1 m<sup>3</sup>/hr is maintained constant with the help of orifice. Suction pump is equipped with heavy duty induction motor. These features ensures that sampling rate is unaffected with filter choking and input voltage fluctuations.

Key component of the instrument is multi jet PM1.0 IMPACTOR which is accurately fabricated using CNC machine as per design. Modular design of sampler, tubing and other fitments made this sampler simple and most suitable for PM1.0 monitoring. AAS 271-1.0 is easy to operate and work successfully in harsh Indian climatic conditions.



A digital time totalizer and digital flow totalizer with data

logger is fitted in the system to record date, time and flow at set interval of time besides ambient Temp. & barometric pressure.

Features like ON/OFF switch, fuse etc provided for ease of operation most prominent feature of this instrument is its small compact design and low weight.

Sampling rate is 1.0 m<sup>3</sup>/hr is having advantage due to its higher sampling flow rate which result more volume of air sucked through filter paper. Resulting collection of significant quantity of dust on filter for accurate weighing using a 5 digit micro balance.

#### **ADVANTAGES:**

- 1. Gravimetrically PM1.0 dust monitoring.
- 2. Instrument is simple to operate with user friendly features and having low operating cost.
- 3. Pump assembly is brushless and noiseless where low maintenance required
- 4. Sampler can run continuously 24 hrs or more.
- 5. Unit is compact and portable in nature.
- 6. Power consumption is not significant

#### FEATURES:

- 1. Filter holder is designed to accept any standard 47 mm dia. filters.
- 2. Sampling of PM 1.0 is done at constant sampling rate of 1.0 m<sup>3</sup>/hr
- 3. Digital Flow meter & Digital volume Totalizer with data logger are integral part of the system for accurate measurement of flow of air passed through sampling filter. Recording of Ambient Temp., B.P are also recorded.
- 4. Suitable for outdoor use, corrosion free housing for Impactor and filter holder.

## WARRANTY

# ALL ECOTECH PRODUCTS CARRY ONE YEAR WARRANTY FROM DATE



For pricing information and queries contact:

### ECOTECH INSTRUMENTS

K-127, UPSIDC Industrial Area, Site-V, Kasna, Greater Noida, (Uttar Pradesh) Phone: 91-0120-2341127,09810392043, 09999575740, Fax: 91-0120-2341128 Email: ecotechinstruments@gmail.com