

RESPIRABLE DUST SAMPLER

ECOTECH MODEL AAS 217BL

BACKGROUND

High Volume Air Samplers remain workhorse for air quality monitoring in India. Modification and improvements are done in basic HVS by incorporating a cyclone in the sampler which fractionate ambient air suspended particles into two fractions one upto 10 micron which passes through the cyclone and deposited on filter paper while other above 10 micron which are removed by cyclone get accumulated in the cup fitted at bottom of cyclone.

BIS 5182 (Part-23) 2006 has already defined this technology as cyclonic flow technique for Respirable Dust (PM10) Sampling

Ecotech developed RDS meeting requirement given in the BIS 5182 (Part-23) 2006. While developing a user friendly RDS provisions are made in the machine for fitting of Gaseous Pollutants Sampling Attachment. Due to provision of fitting of this attachments AAS 217BL has become an unique system using which one can sample simultaneously PM10, SO₂, NO₂, NH₃ and O₃. Collected PM10 dust can be

analyzed for Heavy metals (Ni, As and Pb) and Benzo(a)pyrene without compromising requirements given in existing standard methods of these air pollutants.

Detailed literature of Gaseous Sampling Attachment Ecotech AAS 109 is enclosed can be referred for specifications of attachment.



TECHNICAL FEATURES

In AAS 217BL ambient air is sucked using low maintenance Brushless blower through corrosion free modular pipe and pass thorough a sharp cutoff cyclone which divides the particulate matters in two fractions one below 10 microns and another above 10 microns. The Respirable dust (below 10 microns) directly get deposited on filter paper and the coarser dust (above 10 microns) collected in the cup fitted under the cyclone. A time totalizer records the total running time of the blower. A programmable digital timer makes the instrument to stop and start as per requirements set in the timer. The manometric systems indicates the rate of flow in cubic meter per minute which can be read directly on calibrated scale. Ecotech RDS has all branded components and suitable for outdoor field use.

Only SS hardware are used in sampler. All Ecotech products are lockable and all products can be opened by single master key provided with each instrument. Provision of light has been made in sampler for noting reading of flow and time during night. Space is available for keeping tools mains chord etc in the sampler.

User convenience kit with tools operation manual is also supplied with instrument. Top cover fitted on the sampler is lockable.

IN-HOUSE CALIBRATION FACILITY

Calibration Certificate with NABL symbol is issued for Respirable Dust Sampler from (Certificate No. C-0862 and C-0880) NABL Accredited Center for Calibration Services (A division of Ecotech Instruments)

SPECIFICATIONS :

Reference	Meet requirements given in BIS 5182 (Part -23) 2006
Flow Rate :	0.9 – 1.4 m ³ /min free flow
Suction Pump	Brushless Blower fitted with induction motor.
Particle Size :	Particles of 10 microns & below collected on Filter Paper. Particles bigger than 10 microns collected in a separate sampling cup fitted under the cyclone.
Sampling Time :	Can be operated upto 32 hours on continuous basis
Sampling Time Record :	0 to 9999.99 hrs. Recorded on a Time Totalizer.
Particle Size	Separate provision for collection of Respirable and Non-respirable(less than and greater than 10 microns) size particles.
Body	The body of RDS is robust enough to withstand impacts and vibration in transportation it is made of heavy Aluminium sheet.
Power requirement :	Nominal 220 ± 10 V, Single Phase, 50Hz AC mains supply. Built in voltage stabilizer with auto shut off 170-270V
Size & Weight	420 x 315 x 915mm (approx), 41 Kg (approx)
Connectivity	Provisions are existing in the RDS to attach or detach Gaseous Pollutants Sampling Attachment (AAS 109) in field.

WARRANTY

ALL ECOTECH PRODUCTS CARRY ONE YEAR WARRANTY

For pricing information and queries contact:



ECOTECH INSTRUMENTS

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