



VSS1 PLS



APPLICATION

This Stack Sampler VSS1 PLS is a Grab Sampler which can monitor Particulate Matter (PM) and any water soluble gaseous pollutants like SO₂, NO_x, HF, Cl₂, H₂S, NH₃, etc., in industrial emissions from Stationary source/Chimney and Vent. for special applications special accessories like heated probe (for high moisture laden emissions) for sampling cyclone (for high PM conc), fluoride monitoring kit etc, are available additionally provision has also been made to monitor temperature and pressure at the inlet of the flow meter to normalize the volume of the gas sampled. Instrument is capable of measuring temperature as high as 1000°C in stack emissions.

OPERATING PRINCIPLE

The Particulate Matter is collected over a filtration thimble. It entrap and absorbs various gaseous pollutants in suitable reagents, which are analyzed subsequently by simple Wet Chemistry methods to determine the concentration of specific pollutants.

FEATURES

- Cumbersome Manometer has been replaced with digital pressure cell.
- Designed to determine the velocity of gases also
- Measures total quantity/volume of the emissions very accurately.
- Size and weight of panel has been reduced considerably.
- Pitot and probe pipe is being provided with extendable arm of 1m each.
- Calibrated Pitot, probe pipe, thimble holder, nozzles, tools etc, all accommodated in a carrying case.
- Temperature and pressure at inlet of the rotameter, in order to normalize volume of the sampled gas
- Numbers of joints have been reduced & thus chances of leakages are minimized
- Tripod stands for better accessibility.
- Compact Hardware & Portable light weight rotatory vane type pump etc.
- Standard accessories like rotameter, pressure & temperature, metering system & provision for simultaneous sampling.
- Sampling train with improved glass joints & ice tray for better cooling
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NEED

Utilizing The Experience of last 30 years, CPCB in 2015 revised the specifications of the stack sampling system & EIPL has produced a new model VSS1 PLS with improved features strictly in compliance with latest CPCB guidelines so as to obtain reliable results. VSS1 PLS overcomes all the drawbacks of previous models and is used for simultaneous sampling for Particulate Matter and gaseous pollutants.



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FEATURES

- Specially designed 2 thermocouples in the range 0-500oC and 0-1000oC
- Levelling assembly ensures that the rotameter is standing in right angle vertically.
- Dry Gas Meter added in panel itself to measure total sample volume.
- Ambient Temperature Sensor with Digital Display
- Special Push-Fit Joints to minimize the assembly time.
- Easy Leak Check facility to ensure accurate monitoring
- Programmable timer and vacuum pump Provided all the critical components have NABL Calibration Certificate

SPECIFICATION

Stack Temperature Range	Ambient to 600 deg C and 500-1000 deg C read on separate Digital Pyrometers
Temperature Sensor	At Metering Point (0-50 degC)
Ambient Temperature	Ambient temperature digital display
Stack Velocity Range	0 to 60 m/sec
Thermocouples	Thermocouple sensor with digital display in SS 304 casing, length of insertion of 1 m with 2m long cable. Additional 1m thermocouple for High Temperature range Digital with 0-1300 mm of H2O range.
Pitot Tube	Calibrated S-type pitot tube fabricated from SS304, 1m length
Gaseous Sampling	0.2 – 6 LPM collection in a set of Borosilicate glass impingers.
Particulate Sampling	2 –60 LPM collection on thimble type filter up to 0.3 micron rating.
Rotameter	Acrylic body rotameter with 2% FSD accuracy, 0 – 60 LPM for Particulate and 0-6 LPM for gases.
Sampling Probe	Made from SS 304 tube, 1m length
Filter Holder	Fabricated from SS 304 tube suitable to hold either cellulose filtration thimble (size 28mm ID X 100mm long) or glass micro fibre thimble (size 19mm ID X 90mm long).
Nozzles	0 -60 minutes, 1 second readout with start and stop switches.
Impingers	4 No. of 250 ml capacity and 4 No. of 120ml capacity borosilicate glass impingers supplied with cold box with a provision to keep ice.
Vacuum Pump	Monoblock Rotary Vane type, oil lubricated, 0.5HP single phase motor (230V) with more than 60 lpm free flow capacity.
Programmable Sampling	Programmable Timer for Vacuum Pump to start and stop at fixed time interval.
Dry gas Meter	Dry Gas Meter with Resolution of 1L

1
Year
Warranty

*Specifications are subject to change without any prior notification



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