

INTERMEDIATE CHECKING SYSTEM FOR S TYPE PITOT TUBE

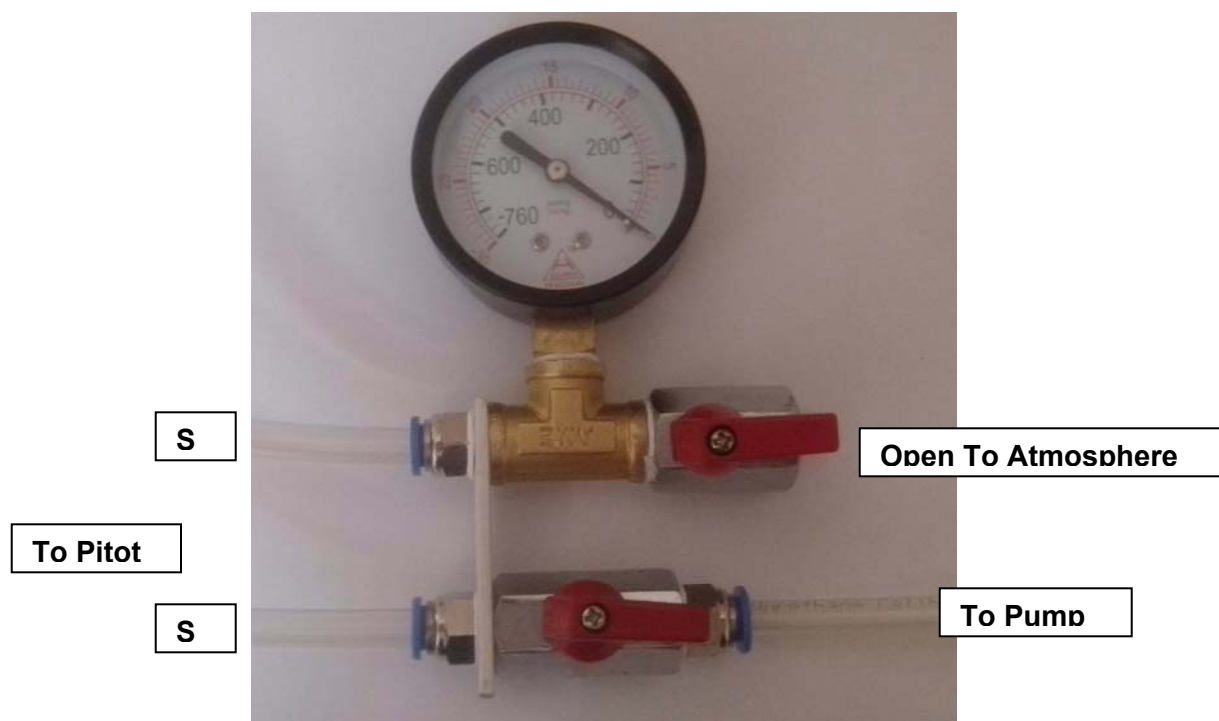


FIGURE -1

BACKGROUND

Velocity measurement in stack emission monitoring is very critical and is directly proportional to Iso-kinetic sampling flow rates. Thus measurement of velocity need to be done carefully using calibrated S-type Pitot Tube and Thermocouple- Pyrometer

Being a metallic mechanical structure two type of checks are required to be performed on Pitot Tube.

1. Tips of both the tubes need to be physically inspected for damages in case of damage seen Pitot Tube need to be calibrated after repair of tip.
2. Leak check of Pitot tube There should not be any leaks from joints connector and from pipes.

Checking Procedure

With regular use of Pitot Tube fitted with push fit connectors and tubings leakages are known to develop which need to be checked time to time for rectification. Leak Checking is desired before each measurement.

Intermediate checks for probable leaks in Pitot with connector fitted are need to be done to meet the requirement.

Tips of the pitot need to be carefully protected so that shape is not deformed while handling. To perform leak check vacuum need to be created in the Pitot either by pump or by other available system.

S marked ends of leak check adopter pipe (Fig 1) need to be connected to Pitot Tube on push fit connector. Monitoring end of Pitot need to be joined using provided silicon pipe so that both pipes of pitot can be checked simultaneously. Vacuum of 200+ mmHg need to be created either by pump or by other available system. Vacuum gauge reading is used to set the vacuum in tube. Close the valve quickly so that generated vacuum remain trap in the tube.

Vacuum created must remain stable and drift must not be more than 50 mmHg in 30 second. Data need to be recorded in enclosed leak check format.

ECOTECH INSTRUMENTS

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LEAK CHECK DATA SHEET FOR S TYPE PITOT TUBE

Pitot Tube: S Type

ID..... Pitot Tube Constant

Criteria

Physical inspection of open end Tip of Pitot for shape need to be done for damages. Ensure that its shape do not damage while handling. Recalibration needed if physical damages are visible.

Leak Check: Vacuum drop should not be more then 50 mm Hg in 30 seconds. Vacuum to be created 200+ mmHg either us pump or by other available system

Date of Test	Time (Hrs)	Vacuum (Drop in 30 Second) mmHg

Note: - Repeat test or rectification in fitting and repairs in tube is required if leakages are beyond acceptable limit as specified in leak check procedure

Name:.....

Designation.....