

Flue Gas Analyzer System for Fire Experiments

Flue Gas Analyzer system for measuring the following gas concentrations and velocity at exhaust duct as shown in (Figure1) in fire experiments and simultaneously data logging with respect to time in the PC (PC is in CBRI scope) to be conducted in a single room as per technical specifications mentioned below.

Technical Specifications

SI No	Parameter	Type	Range	Repeatability
1.	Oxygen	Paramagnetic type	0-25% or more	0.05% or better
2.	Carbon monoxide	Infrared	0-1% or more	1% or better
3.	Carbon dioxide	Infrared	0-10% or more	1% or better
4.	Temperature	Thermocouple	0-900 °C or more	2% or better
5.	Differential Pressure	S-type 300 mm long pitot tube or more	0 to 50 mbar or more	1% or better
6.	Gas Probe	400 mm long or more made of SS or ceramic material with holes (customized) as per figure3.		
7.	Communication	RS232/RS485		

Terms and Conditions:

1. Installation, demonstration, commissioning, system integration, technical training of complete system should be done by the supplier at experimental facility site CBRI, Roorkee.
2. Installation related cables, conduits, accessories (gas sample handling system), software, civil and electrical works should be supplied and carried out by bidder as per actual site installation requirement of **attached figure1, figure2** (distance is 15 m data logger room and experimental site).
3. The following document in hard and soft copies should be provided
 - (i) Instruction manual for operation of equipment.
 - (ii) Proper calibration certificate.
 - (iii) Instruction manual for software
4. Warranty for system should be one year in all respect

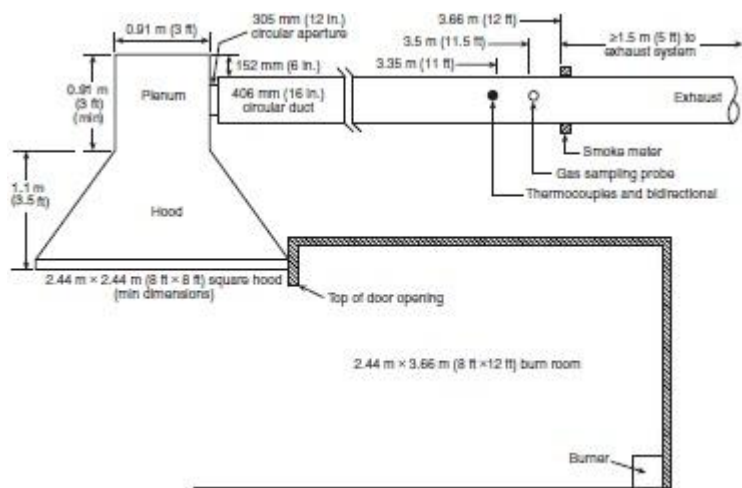


Figure 1: Experimental room with exhaust hood duct and instrumentation location

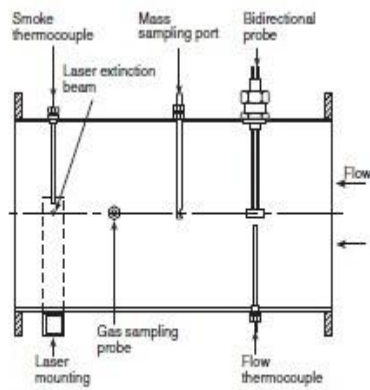


Figure 2: Location of probe with other sampling instrumentation

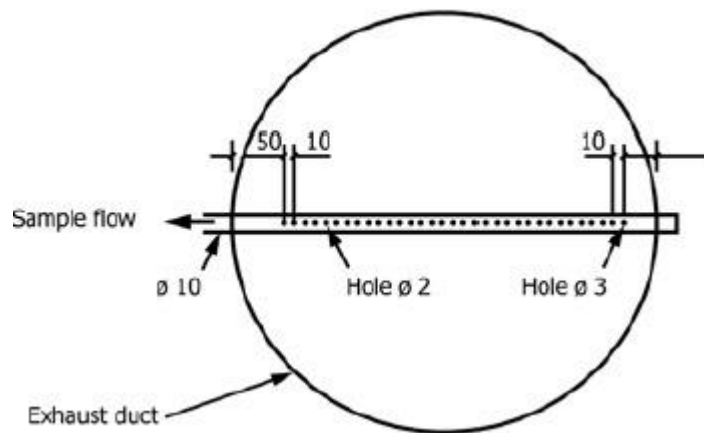


Figure 3: Sample probe