Clean Air Pitot Probe / S-Type Pitot

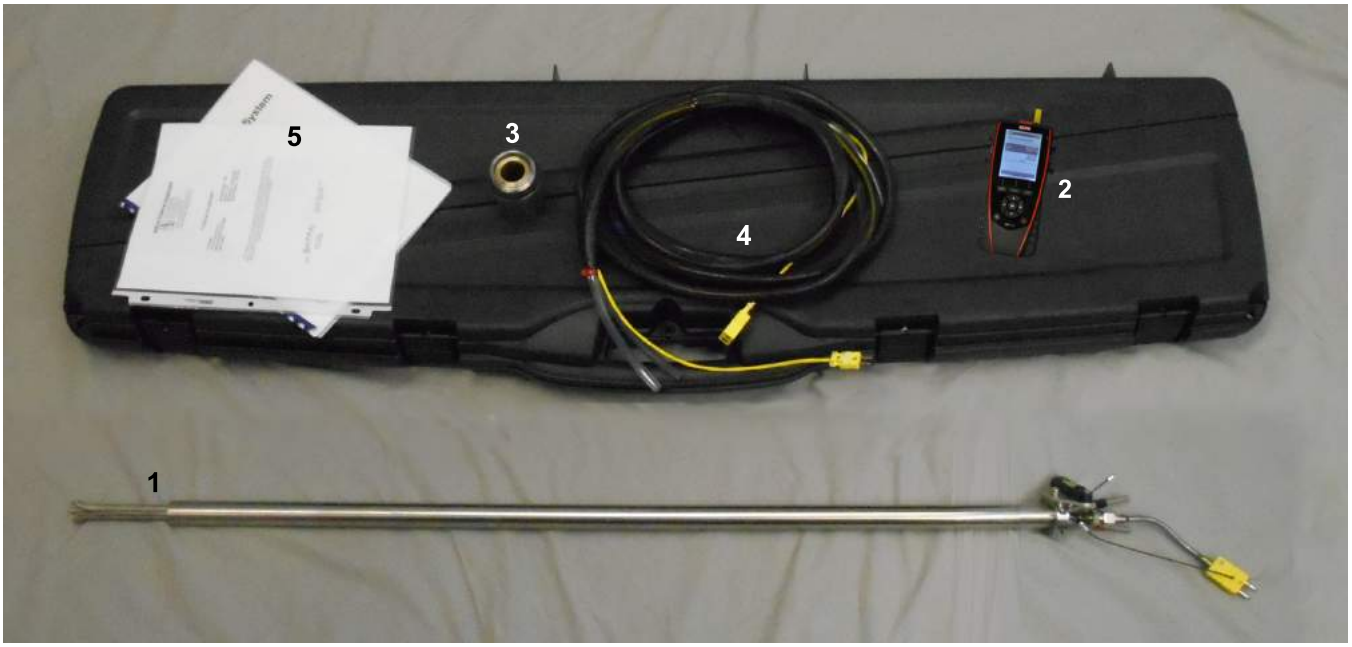
The clean air pitot probe is utilized to measure air velocity, pressure, and temperature within a flow stream. It uses a standard S-Type pitot probe to measure velocity and thus can follow EPA Method 2 test procedures. The probe is connected to a pressure gauge or electronic pressure transducer to measure the differential. A wind tunnel calibration is necessary in order to determine the calibration coefficient to obtain the flow velocity. An integrated thermocouple is used to measure the flow temperature.

EPA Method 2 testing in a flue gas duct using the S-Type pitot probe

Most often, “Clean Air” testing refers to measurement of primary air in a coal piping system when the coal flow is off. Since the Clean Air Pitot Probe meets EPA Method 2 specifications, it can also be used to measure any air or flue gas flows, including secondary air, boiler outlet, air heater inlet/outlet, electrostatic precipitator inlet/outlet, or stack exhaust.

The Clean Air Pitot Probe by Airflow Sciences Equipment LLC (ASE) can be manufactured to fit a variety of testing needs.

The standard system (ASE part no. CAP-SYSTEM-V2) is shown in the photograph below.



Components:

1 – S-Type air velocity probe with thermocouple (Part no. CAP)
2 – Combined pressure and thermocouple meter (CAP-MTC)
3 – Dustless connector (DC-CAP)
4 – Tube umbilical, 10' [3m] length (contains pressure/thermocouple lines) (CAP-UMB)
5 – Users Manual, Certificates of Calibration, Calculations Spreadsheet

Clean Air Pitot Probe Details and Specifications

The clean air pitot probe can be manufactured to a variety of specifications. Typical features are listed below, though custom orders are available:

-- Pipe diameter – 12” to 96” [304 to 2438 mm]
-- Probe body diameter – 1” [25.4 mm]
-- Bubble level indicator (to ensure proper alignment)
-- Material – 304 stainless steel
-- Dustless connector – 1.5” [38.1 mm] or 2” [50.8 mm] NPT thread

Pressure-sensing head for clean air pitot (S-Type)

Probe end with bubble level

Dustless connector

Optional Accessories

- Seal Air Fitting with Traverse Rod

ASE's Mobile Seal Air Fitting (part no. SAF-MOB) greatly improves the accuracy, speed, and safety of a test. When testing pipes with high positive static pressure, the SAF keeps the air and particulate from leaking out of the pipe when the test port is open to insert the probe. The SAF blows plant compressed air into the test port, allowing safe access and making for a much cleaner test.

SAF-MOB

The SAF-MOB has an integrated Traverse Rod with color-coded markings corresponding to the probe insertion depths for the CAP Traverse. This makes it easy for the operator to accurately and quickly position the probe at each test point for the clean air testing. The Traverse Rod eliminates the need to manually mark the probe, and is available for pipe diameters up to 32" [812.8 mm].