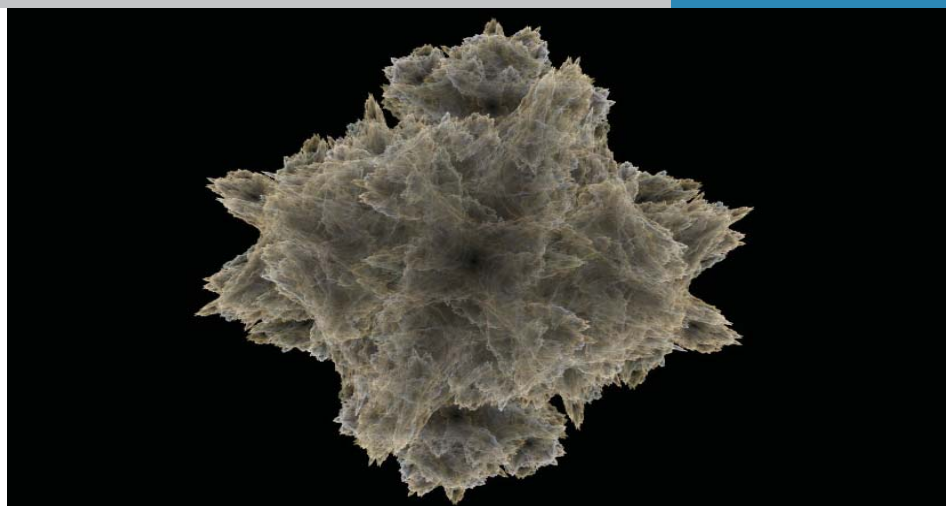


The Thermo Scientific ACCU System provides users of the TEOM 1400ab Monitor an option for conditional sampling for gravimetric measurements and chemical speciation.

Thermo Scientific ACCU™ System for TEOM 1400ab



Concept

The Thermo Scientific Automatic Cartridge Collection Unit (ACCU) was designed as a result of input from many users of TEOM® systems. These users not only sought a way to measure particulate mass concentrations in real time, but also looked for a means of collecting particulate matter or gases on their choice of filter media or gas collection tubes under microprocessor control.

Operation

The ACCU system adds the ability to sample ambient particulate matter for subsequent chemical analysis by utilizing the auxiliary (bypass) flow of flow splitter-equipped systems and the microprocessor in the Series 1400ab monitor. The bypass flow is carried to the ACCU system, and then onward to the auxiliary flow controller in the control unit (figure on back). Inside the ACCU system a bank of solenoid valves redirects the bypass flow through

one of eight sampling devices (optional) mounted within the unit. An optional PM-2.5 inlet is available when the 1400ab is set up to monitor PM-10.

Analysis

The standard 47 mm filter holders available for use with the ACCU System are suitable for gravimetric analysis, as well as speciation techniques that involve digestion of a sample from a filter. These include analytical chemistry techniques such as AA (atomic absorption) and ICP (inductively coupled plasma).

Other analytical methods for the speciation of PM may require a homogeneous distribution of sampled particles across the surface of a collection filter. In such cases, the use of the ACCU Filter Holder for XRF is recommended. It incorporates the same exchangeable filter cassettes for 47 mm diameter filters as the Partisol® family of air samplers.

Key Features/Benefits

- Independent collection of PM for chemical analysis
- Flexible for users choice of media and collection hardware
- User-programmable conditional sampling
- Optional PM-2.5 inlet add-on

ACCU System for TEOM 1400ab Monitor

Connections

- 1/4" Quick Connect Fittings
- Cable to Control Unit: 10 m
- Air Tube to Flow Splitter: 4 m (3/8" OD)

Weight and Dimensions

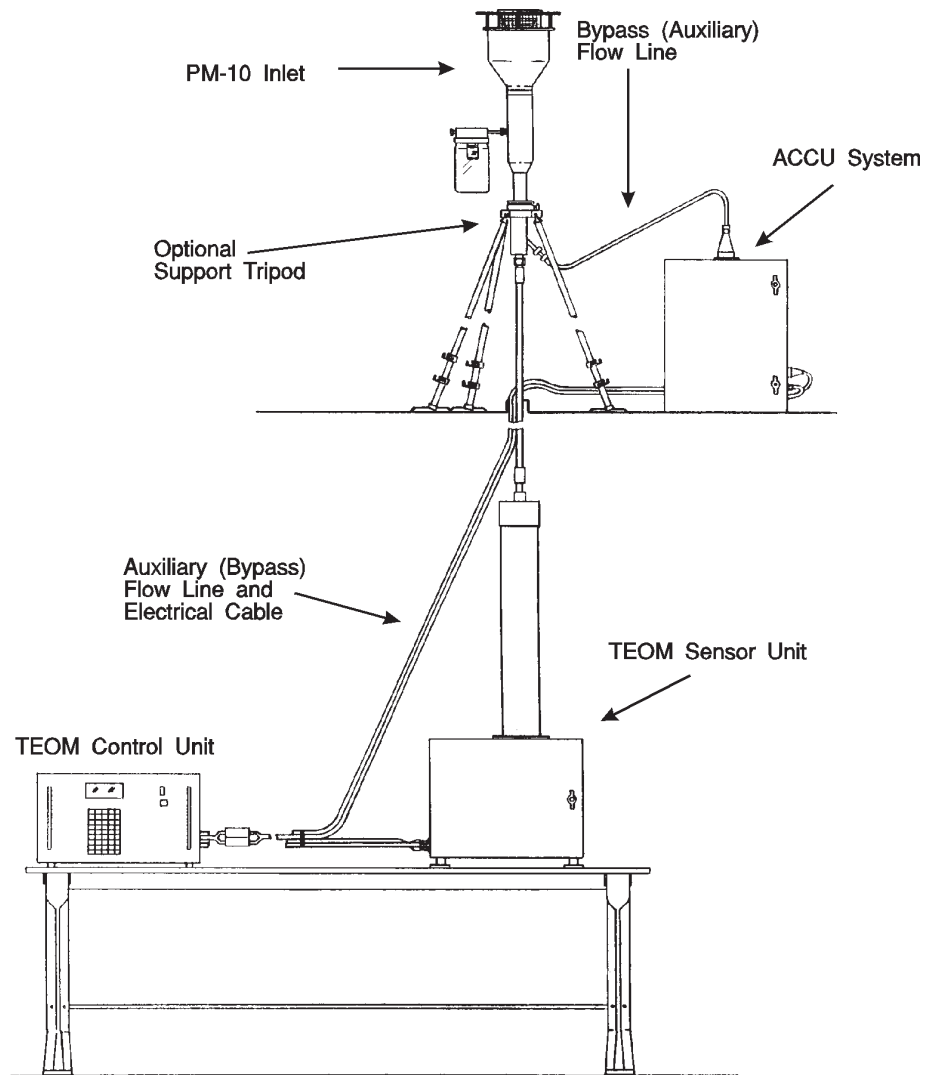
- Exterior Dimensions: 24" (60 cm) H x 21" (52 cm) W x 9" (23 cm) D
- Weight: 57 lbs. (26 kg)

Collection Hardware

- Maximum Cartridge Size: 13" (33 cm) long x 2" (5 cm) diameter
- Internal tubing: 7/16" OD, 1/4" ID conductive tubing

Optional Stand

- Constructed of anodized aluminum
- Supports the ACCU enclosure with 4 bolts mounted directly through the back of the system
- Dimensions with stand: 56" (142 cm) H x 21" (52 cm) W x 32" (81 cm) D



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