

PM2.5, PM10 Samplers

2, 4, or 10 L/min

Pumps for sampling with the PEM



• 2 or 4 L/min flow rates, see the AirChek Series on pages 14-21

• 10 L/min flow rate and 24-hour sampling, see the Leland Legacy on pages 24-25

APPLICATIONS

- Childhood asthma studies
- Green Building certification
- IAQ studies
- School zone investigations

Data Interpretation

Particulates as PM2.5

► **LEED Green Buildings**
Indoor Air Maximum Concentration: 15 µg/m³

Source: LEED for New Construction Rating System v4 (U.S. Green Building Council, usgbc.org)

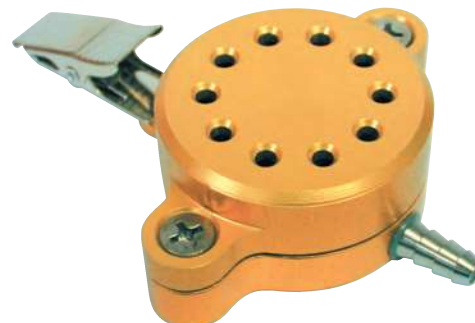
V Video	P PowerPoint	W Webinar	S Sampling Solution
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Personal Environmental Monitor (PEM)

Choice of Flows for PM10 and PM2.5 in Indoor Air

- **Referenced in EPA Method IP-10A**
 - For particles in indoor air
- **Small and unobtrusive**
 - Connect to a personal sample pump and clip in a worker's breathing zone
 - Use with a 10 L/min pump for 24-hour area sampling
- **Suitable for LEED Green Building sampling**



The Personal Environmental Monitor is a small, lightweight impactor device used with a personal sample pump to provide effective sampling of PM10 and PM2.5 in indoor air. Personal exposure is determined through gravimetric analysis for particle mass and chemical analysis for specific compounds.

Sample Time:	Varies
Sample Rate:	2, 4, or 10 L/min
Sample Pump:	Universal, AirChek Series, or Leland Legacy
Sample Media:	37-mm PTFE filters*
Tubing:	3/16-inch ID

How the PEM Works

The PEM consists of three major parts: cap, impaction ring assembly, and base. A 37-mm after-filter is inserted in the base and the PEM assembled. When used with a personal sample pump at the required flow rate, aerosol is accelerated through a number of nozzles in the cap. Through inertia, particles larger than the 50% cut-point of the sampler impact onto a greased impaction ring and can be discarded after sampling. Particles smaller than the 50% cut-point pass through the impactor and collect on the 37-mm after-filter. Six models of PEM are available for the collection of PM10 or PM2.5 at three different flow rates.

Cut-point	Model	Flow Rate	Cat. No.	Qty.
2.5 µm		2 L/min	761-203	ea
		4 L/min	761-203A	ea
		10 L/min	761-203B	ea
10 µm		2 L/min	761-200	ea
		4 L/min	761-200A	ea
		10 L/min	761-200B	ea
Accessories				
PEM Calibration Adapter			761-202	ea
After-filter, 37-mm, 2.0-µm PTFE* with PMP support ring			225-1709	50

* Back pressure on PTFE filters can vary within the same lot.