

Operating Instructions

Gravi-Sert™ Filter Capsule

Accessories	
PART#	DESCRIPTION
37MMH-2	37mm 2-Piece Cassette Housings
FSP37	37mm Cellulose Support Pads
ZA0046	Cassette Opening Tool
25MMH-2	25mm 2-Piece Cassette Housings
FSP25	25mm Cellulose Support Pads



The Gravi-Sert™ filter capsule is a self-contained filter “cassette capsule” that captures all particles that enter a filter cassette. It consists of a PVC filter membrane sealed to a static-dissipative PVC shell to create the capsule.

In the laboratory, Gravi-Sert™ filter capsules may be easily weighed on a microbalance and then assembled into a Zefon 2-piece filter cassette. After sampling, the entire capsule is easily removed from the cassette and weighed again to determine its post sampling weight.

Gravi-Sert™ is suitable for sampling methods that require gravimetric analysis. This includes the following methods:

Carbon Black	NIOSH method 5000
Dust - Total	NIOSH method 0500
Dust - Respirable	NIOSH method 0600



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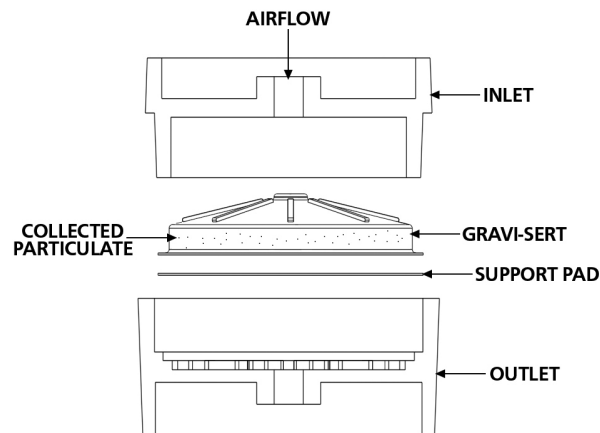
LA03062 Rev 3

Product Specifications

Shell Material:	PVC
Filter Membrane:	5.0µm PVC
Diameter:	25mm or 37mm
Weight:	~300 mg @ 50% RH (37mm version) ~114 mg @ 50% RH (25mm version)

How it works

1. The Gravi-Sert™ is weighed in the laboratory and then placed inside a 25 or 37mm 2-Piece filter cassette.
2. During sampling, as air enters the cassette, all particles that enter the cassette are captured inside the Gravi-Sert™.
3. After sampling, the Gravi-Sert™ is removed from the cassette and weighed in the laboratory.



Warnings

- Gravi-Sert™ filter capsules are delicate and must be handled with care to prevent damage.
- Gravi-Sert™ filter capsules must precisely fit the cassette inlet and outlet. They are designed to fit Zefon brand 25mm or 37mm 2-Piece filter cassette housings, model #25MMH-2 or #37MMH-2. Zefon has not tested nor can guarantee Solu-Sert capsules will fit any other brand of filter cassette.

Filter Cassette Assembly

1. Prepare cassette outlets with a support pad.
2. Carefully remove Gravi-Sert™ capsules from packaging tube, taking care to not apply pressure or squeeze the packaging tube while holding it.
3. Weigh the Gravi-Sert™ on laboratory balance per the analytical method being used and record the weight.
4. Place Gravi-Sert™ into the cassette outlet with the filter side facing down.
5. Visually inspect the dome of the Gravi-Sert™ to make sure it has not been damaged or pushed inwards.
6. Place cassette inlet on top of cassette outlet, press and seal closed. Visually inspect cassette one final time to make sure dome is intact.
7. Insert inlet and outlet cassette plugs.
8. Mark the cassette with the weight, or mark with a reference number to enable the original weight to be referenced post sampling.



Post Sampling

1. Carefully open filter cassette, taking care to open it slowly so the Gravi-Sert™ does not fall or pop out. (Zefon offers a cassette opening tool, product # ZA0046, to aid in opening cassettes).
2. Weigh the entire Gravi-Sert™ capsule to determine its post sampling weight. Compare to the pre-sampling weight per the analytical method being followed.