



# U.S. MICRO-SOLUTIONS, INC.

475-C Willow Crossing Road • Greensburg, PA 15601 • Phone: 724-853-4047 • Fax: 724-853-4049  
Email: [info@usmicro-solutions.com](mailto:info@usmicro-solutions.com) • Visit us on the web @ [www.usmicro-solutions.com](http://www.usmicro-solutions.com)

## Operating Instructions for Carpet Pump

### Purpose:

The Carpet Sampling Pump Kit is used for the collection and analysis of fungal spores from carpets and other dusty areas.

### Principle:

The Carpet Sampling Kit includes a high volume pump connected to a carpet cassette. The carpet cassette consists of a 37 mm cassette with an attached nozzle preloaded with a 0.45um pore size polycarbonate filter. The pump provides a constant air sample flow that can be adjusted from 10-20L/min and is controlled by an adjustable valve on the pump. The airflow directs any dust containing fungal spores into the carpet cassette that can be submitted to the laboratory for analysis of viable fungal spores.

### Materials:

#### Carpet Sampling Kit:

Carpet Cassette – 37mm cassette w/0.45um polycarbonate filter  
High Volume Pump  
Vinyl Tubing  
Rotameter  
Template  
Luer Adapter  
Timer  
Writing Utensil

### Procedure:

1. Attach one end of the vinyl tubing to the inlet nozzle on port A of the high volume pump.
2. Prepare the carpet cassette by removing the round red button plug on the end closest to the filter and replace it with the luer adapter, a small opaque plastic piece provided and contained in the 37 mm Sampler Kit. (The smaller end of the adapter fits snugly into the cassette). Set aside the red plug for later use.
3. Attach the other end of the vinyl tubing to the end of the luer adapter protruding from the carpet cassette.
4. Remove the red plug from the attached nozzle on the carpet cassette. Set aside for later use.
5. Plug in the high volume pump and turn it on.
6. When a sufficient amount of carpet dust has been collected, turn off and unplug the pump. (Sampling time is not important. Results are reported as CFU/area sampled.) Sample as large an area as necessary to obtain a sufficient sample amount that will yield meaningful results.
7. Carefully remove the luer adapter/vinyl tubing and replace it with the red button plug removed in step #2.
8. Replace red plug that was removed in step #5 to the carpet cassette nozzle.

### **Operating Instructions for Carpet Pump – cont'**

9. **Package the cassette tightly and ship samples overnight for first morning delivery to the laboratory. Ship the Carpet Sampling Pump Kit by 2-day air.**

#### **Quality Control:**

1. Sample a non-suspect carpet to serve as a negative control.

#### **Limitations:**

1. Failure to follow the instructions above may lead to erroneous results.
2. Insufficient sample quantity may limit analysis options.

#### **Reference:**

SKC Operating Instructions, 863 Valley View Road, Eighty Four, Pennsylvania 15330