

## Staplex® Microbial (Viable Particle) Air Samplers

### Applications:

Indoor Air Quality Studies  
Medical treatment and office environments  
Sterile manufacturing  
Filter and Clean Room Efficiency Studies  
Pharmaceutical Production  
Hospital Environments

Brewery Processing Areas  
Food Processing Areas  
Animal Care Laboratories  
Sewage Treatment Plants  
Cosmetic Manufacturing  
Grain Processing and Transportation  
Food Processing Areas

### Single, Two and Six Stage Models

**Model MAS-1** (Single Stage) includes 115 VAC Air Sampler

**Model MAS-1A** (Single Stage) includes 220 VAC Air Sampler

**Model MAS-1-12V** (Single Stage) includes 12 V DC Air Sampler

**Model MAS-2** (Two Stage) includes 115 VAC Air Sampler

**Model MAS-2A** (Two Stage) includes 220 VAC Air Sampler

**Model MAS-2-12V** (Two Stage) includes 12 V DC Air Sampler

**Model MAS-6** (Six Stage) includes 115 VAC Air Sampler

**Model MAS-6A** (Six Stage) Includes 220 VAC Air Sampler

**Model MAS-6-12V** (Six Stage) includes 12 V DC Air Sampler

## Staplex® MAS-1 Single Stage Microbial Air Sampler

- **Fast, efficient design, easy to use to collect and assay aerobic species of bacteria and fungi**
- **Meets ACGIH recommendations for bioaerosol sampling.**
- **Corrosion resistant, easily sterilizable**
- **Utilizes standard 90 & 100 x 15 mm disposable plastic petri dishes**
- **Verifiable flow rate**
- **Made in U.S.A.**



Staplex® Model MAS-1 and MAS-1A Single Stage Microbial Air Samplers are designed to meet the specifications of the latest A.C.G.I.H. Bioaerosol Committee concerning sampling protocol and analytical procedures. The single stage design and verifiable low sampling flow rate minimize microorganism damage and allow efficient sampling and sterilizing. Spring retainers allow more samples to be taken in less time, with less culture damage.

Designed for in-house microbial sampling, the MAS-1 viable sampler collects and enumerates all airborne microorganisms. The MAS-1 is comprised of an aluminum inert core, sampling stage and a base plate held together by three spring clamps and sealed with O-ring gaskets. The sampling stage had 400 precision-machined orifices.

The collection and assessment of aerosol samples is very simple. A petri dish containing an agar medium appropriate for the microorganisms that may be encountered is placed in the instrument and a sample of air is drawn. The petri dish is then removed, inverted in its cover, incubated and counted by an accepted method. (Petri dishes/agar not included.)

### Specifications:

**Model MAS-1** includes 115 VAC Air Sampler

**Model MAS-1A** includes 220 VAC Air Sampler

**Model MAS-1-12V** (Single Stage) includes 12 V DC Air Sampler (draws approx. 13 amps)

## Staplex<sup>®</sup> MAS-2 Two Stage Microbial Air Sampler

- Separates reparable and non-reparable airborne contaminants for collection and assay of aerobic species of bacteria and fungi
- Meets ACGIH recommendations for bioaerosol sampling.
- Corrosion resistant, easily sterilizable
- Utilizes standard 100 x 15 mm disposable plastic Petri dishes
- Verifiable flow rate
- Economical, fast, easy to use
- Made in U.S.A.

Staplex<sup>®</sup> Model MAS-2 and MAS-2A Two Stage Microbial Air Samplers combine viable particulate air sampling and size selective impactor air sampling in one easy to use unit. The multi-orifice cascade impactor size selective feature permits assessment of an airborne contaminant in relation to its disease potential arising from its deposition site within the respiratory tract. 95% or more of the viable particles above 0.8 microns can be collected on a variety of agar.

The Staplex<sup>®</sup> Two Stage Microbial Air Samplers are effective tools for treatment of hospitalized high-risk infection candidates, the manufacture of sterile and bioengineering materials, pharmaceuticals, and plant and animal breeding. These models are designed to meet the specifications of the latest A.C.G.I.H. Bioaerosol Committee concerning sampling protocol and analytical procedures. The Staplex<sup>®</sup> units minimize micro-organism damage, are easily sterilizable and have a verifiable sampling rate.

Petri dishes containing an agar medium appropriate for the microorganisms which may be encountered are placed in the instrument and a sample of air is drawn, The petri dishes are then removed, inverted in their covers, incubated and counted by an accepted method. (Petri dishes/agar not included.)

### **Specifications:**

**Model MAS-2** includes 11 5 VAC Air Sampler

**Model MAS-2A** includes 220 VAC Air Sampler

**Model MAS-2-12V** (Two Stage) includes 12 V DC Air Sampler (draws approx. 13 amps)

---

# Staplex® MAS-6 Six Stage Microbial Air Sampler

- Size separates viable particles for collection and assay of aerobic species of bacteria and fungi
- Meets ACGIH recommendations for bioaerosol sampling.
- Corrosion resistant, easily sterilizable
- Completely portable, weighs less than 20-lbs. (9 Kg)
- Verifiable flow rate
- Economical, fast, easy to use
- Made in U.S.A.



## Models:

**Model MAS-6** (Six Stage) includes 115 VAC Air Sampler

**Model MAS-6A** (Six Stage) Includes 220 VAC Air Sampler

**Model MAS-6-12V** (Six Stage) includes 12 V DC Air Sampler (draws approx. 13 amps)

## Description:

Staplex® Model MAS-6 and MAS-6A Six Stage Microbial Air Samplers are multi-orifice, cascade impactors used to measure the concentration and particle size distribution of aerobic bacteria and fungi in the intramural or ambient air. These units have been widely used for enumerating the viable particles in a microbial aerosol. Viable particles can be collected on a variety of bacteriological agar and incubated in situ for counting or identification. These samplers are designed so that all particles collected, regardless of physical size, shape, or density are sized aerodynamically and can be directly related to human lung deposition.

The multi-orifice cascade impactor size selective feature permits assessment of an airborne contaminant in relation to its disease potential arising from its deposition site within the respiratory tract.

The Staplex® MAS-6 and MAS-6A includes 12 glass Petri dishes. A general purpose, solid bacteriological agar medium (not included) is placed in six Petri dishes. The collection plate with Petri dishes are inserted on each stage of the sampling instrument and a sample of air is drawn. The petri dishes are then removed, inverted in their covers, incubated and counted by an accepted method. Note: 6 stage units can be ordered in special configurations for allow single-stage and two-stage microbial sampling (consult factory).

## Range of particle sizes collected by each stage (in microns)

Stage 1	7.0 and above
Stage 2	4.7 to 7.0
Stage 3	3.3 to 4.7
Stage 4	2.1 to 3.3
Stage 5	1.1 to 2.1
Stage 6	0.65 to 1.1

---

Staplex and the Staplex logo are registered trademarks of The Staplex Company, Inc., Brooklyn, New York 11232-1695 USA. Patented and patents pending. Specifications and availability subject to change without notice or obligation.  
© 2001-2005 The Staplex Company, Inc. All rights reserved [www.staplex.com](http://www.staplex.com)