

Filter Heads

The previously recommended Single Hole and Seven Hole heads may have been replaced by the IOM in some MDHS methods. Check the latest revision of the method for your application.

Single Hole "Lead Head"

Use the 25-mm Single Hole Head to sample lead according to MDHS 6.

Cat. No. 225-52



Seven Hole Head

While the IOM is preferred for MDHS 14/3 (inhalable dust), the 25-mm Seven Hole Head remains a viable sampler.

Cat. No. 225-50



Asbestos Head

The 25-mm Asbestos Head is a cowl plastic sampler designed for use with a gridded filter as per MDHS 39 for asbestos fibers and EH 10. The Asbestos Head is also available with aluminum cowl.

Description	Cat. No.
With plastic cowl	225-54
With aluminum cowl	225-54A

MultiDust Foam Discs

Simultaneous Fraction Sampling
Use with a 25-mm filter in the IOM Sampler for simultaneous sampling of respirable and inhalable PM.

Cat. No. 225-772pk/10

Cat. No. 225-772-50.....pk/50



IOM Plastic Cassette with Transport Clip and Cover
Cat. No. 225-71A

Professionals choose the authentic IOM!

IOM Sampler

A Gold Standard for Personal Inhalable PM Sampling

- ▶ **Meets U.S. and international standards**
 - ACGIH sampling criteria for inhalable particulate
 - ISO/CEN health-related fractions of bioaerosols
 - Preferred sampler for HSE Method MDHS 14/3
 - NIOSH 5700 for particulate formaldehyde
 - Australian standard for inhalable particulate
 - OSHA equivalent method for particulates not otherwise regulated (PNOR)[‡]
- ▶ **Respirable Sampling Option**
 - Use MultiDust Foam Discs with a 25 mm filter
- ▶ **Small and lightweight**
 - Plastic model weighs less than 55 grams (2 ounces)
- ▶ **Maintains sample integrity**
 - Removable 25-mm cassette system eliminates filter handling
 - Cassette and filter are weighed as a single unit to include all collected particles in analysis
- ▶ **Stainless steel cassette available for chemical analysis**
 - Autoclavable for bioaerosol sampling



Worker wearing the IOM Personal Inhalable Sampler

Sample Time:	Varies
Sample Rate:	2 L/min
Sample Pump:	Universal or AirChek 2000/3000
Sample Media:	25-mm filters [†]
Tubing:	1/4-inch ID

[‡] Reference: OSHA letter November 8, 2011; contact SKC for a copy

Choose the original IOM for optimal performance! The patented* IOM Personal Inhalable Sampler houses a reusable 25-mm filter cassette that holds a specified filter for the collection of inhalable particles. When attached to a personal sample pump operating at 2 L/min and clipped near a worker's breathing zone, the IOM effectively traps particles up to 100 µm in aerodynamic diameter. This collection method closely simulates the manner in which airborne workplace particles are inhaled through the nose and mouth. Both the plastic cassette and the filter are pre and post-weighed as a single unit for gravimetric analysis. Alternatively, the stainless steel cassette can be used for chemical analysis.

Description	Cat. No.
IOM Sampler and cassette, [†] in conductive plastic, with transport clip and cover	225-70A
IOM Sampler and cassette, [†] in stainless steel, with transport clip and cover	225-76A
IOM Sampler, [†] in conductive plastic, with stainless steel cassette, transport clip, and cover	225-79A

* U.S. Patent No. 4,675,034 † A 25-mm filter is required for sampling with the IOM; see below.

25-mm Filters for IOM Sampler

The IOM Sampler requires a 25-mm filter for sampling. Select the filter type from the list below that meets your application.

Description	Cat. No.	Qty.
PVC, 5.0 µm, 25 mm	225-5-25	100
Glass Fiber, 25 mm	225-702	500
Glass Fiber, 1.6 µm, GF/A, 25 mm	225-58F	100
MCE, 0.8 µm, 25 mm	225-1930	100
Polycarbonate, 0.8 µm, 25 mm	225-1601	100
Gelatin, 25-mm	225-9551	50

Accessories

Description	Cat. No.
Cassette assembly, in conductive plastic, with transport clip and cover	225-71A
Cassette assembly, in stainless steel, with transport clip and cover	225-75A
Transport Clip and Cover	225-72A
IOM Calibration Adapter	391-01

Button Aerosol Sampler

For Low-level Personal or Area Inhalable PM Sampling

- 4 L/min flow rate enhances sensitivity
- Follows closely the ACGIH/ISO sampling criteria for inhalable particulate mass
- Low sensitivity to wind direction and velocity
- Reduces electrostatic effects
- Small and lightweight
- Autoclavable
- Reduces oversampling of very large particles
- Suitable for collecting bioaerosols for viable or non-viable analysis
- Ideal for personal and area sampling



The patented* reusable SKC Button Aerosol Sampler is a filter sampler with a porous curved-surface inlet designed to improve the collection characteristics of inhalable dust (<100 µm aerodynamic diameter), including bioaerosols for viable or non-viable analysis. The conductive stainless steel inlet reduces electrostatic effects and contains evenly spaced holes that act as sampling orifices for multi-directional sampling and low sensitivity to wind direction and velocity. The proximity of the filter to the inlet minimizes transmission losses and provides for equal distribution of particle loading and low intersample variation. The Button Sampler follows closely the ACGIH/ISO sampling criteria for inhalable particulate mass at 4 L/min. A convenient conductive plastic transport case is available for shipping the filter samples to a laboratory for analysis.

Recommended 25-mm Filters for Button Sampler

The Button Sampler requires a 25-mm filter for sampling. Pore sizes greater than 1 micron are recommended to lower back pressure and enhance sample time with personal sample pumps. Select the filter type from the list below that meets your application.

Description	Cat. No.
Button Sampler , requires a 25-mm filter; see above	225-360
Button Sampler Pump Kit includes Button Sampler, standard XR5000 Sample Pump, single charger, 0.9 meter (3 feet) of Tygon tubing, and calibration adapter, requires a 25-mm filter; see above	210-4121
100-240 V	
Abrasive Blasting Kit includes Button Sampler and protective shield, requires a 25-mm filter; see above	225-367

Description	Cat. No.	Qty.
PVC , 5.0 µm, 25 mm	225-5-25	100
Glass Fiber , 25 mm	225-702	500
Glass Fiber , 1.6 µm, GF/A, 25 mm	225-58F	100
MCE , 1.2 µm, 25 mm	225-1912	100
PTFE ,† 3.0 µm, 25 mm	225-1711	50
Gelatin , sterilized, 25 mm	225-9551	50

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

Accessories

Description	Cat. No.
Protective Shield , for abrasive blasting environments	225-366
Button Sampler Calibration Adapter	225-361
Filter Transport Case , for 25-mm filters, conductive plastic	225-67

* U.S. Patent Nos. 5,954,845 and 5,958,111

ABOUT

Sampling Bioaerosols with the Button Sampler

For growth cultures, use the Button Sampler with a sterile gelatin filter to help maintain microorganism viability.

ABOUT

Size-selective Sampling

Size-selective sampling of industrial aerosols is based on the measurement of particles associated with a specific human health effect. ACGIH recommends that particle size-selective threshold limit values (TLVs) be expressed as follows:

1. **Inhalable** (100-µm 50% cut-point), hazardous when deposited anywhere in the respiratory tract
2. **Thoracic** (10-µm 50% cut-point), hazardous when deposited anywhere in the lung airways and the gas exchange regions
3. **Respirable** (4-µm 50% cut-point), hazardous when deposited in the gas exchange regions of the lungs

PM2.5 and PM10 sampling according to EPA regulations determines compliance with ambient air quality standards, sources of particles, and effects on the environment and public health.

Recommended Pump for Button Sampler
AirChek XR5000
see pages 8-9



More Information
www.skinc.com