BioStage Viable Cascade Impactor



The SKC BioStage® viable cascade impactor meets NIOSH requirements and ACGIH recommendations for sampling indoor and outdoor mold and bacteria. The BioStage comprises an inlet cone, precision-drilled 400-hole impactor stage, and a base that holds a standard-size agar plate. A high flow pump, such as the QuickTake® 30, pulls microorganisms in air through the holes (jets) where they are collected on the agar surface. Testing demonstrates that BioStage provides performance equivalent to the industry-standard Andersen N-6. What sets BioStage apart from other samplers is its SureLock positive seal (instead of bulky spring clamps) that ensures sample integrity.

The SKC SureLock Advantage

SKC introduces the SureLock positive seal advantage! The SKC BioStage Standard Single-stage Impactor is constructed with the same 400-hole jet classification stage as the Andersen N-6 and similar samplers. However, only the SKC BioStage features the SureLock positive seal that:

- Prevents air leaks to ensure complete sample integrity
- Does not depend on spring clamps that wear out or fail
- Requires minimal maintenance

- **■** SureLock positive seal ensures sample integrity
- Easy to use
- Proven viable sampling
- Meets ACGIH® recommendations for bioaerosol sampling
- Meets NIOSH Method 0800 and 0801 requirements
- Studies show performance equivalent to Andersen N-6 and similar samplers (see reference on reverse side)
- Corrosion-resistant aluminum
 - Autoclavable
- **■** Collected organisms remain intact and viable
- Easy setup and calibration
- Uses standard-size agar plates





Single-stage impactor with spring clamps Single-stage BioStage with SureLock seal

Applications

- Indoor Air Quality (IAQ) studies
- Filter and cleanroom efficiency studies
- Pharmaceutical production
- Brewery fermentation
- Animal care laboratories
- Food processing areas
- Sewage treatment plants
- Hospital environments
- Cosmetic manufacturing
- Grain processing and transportation
- Bio-risk response



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Performance Profile

Flow Rate: 28.3 L/min

Material: Inlet cone and

base plate: Precision-tooled autoclavable aluminum

O-rings: Duro 50, BUNA-N (not

autoclavable)

Jet Classification

Stage: 400 holes (0.25-mm hole diameter)

Median

Cut-point (D_{50}): 0.6 μ m

Sample Media: 90 to 100-mm agar plates*

Suggested Media:

For bacteria:

Tryptic Soy Agar (TSA) Blood Agar Plates (BAP)

For mold:

Potato Dextrose Agar (PDA) Malt Extract Agar (MEA)

Dichloran Glycerol 18 Agar (DG-18)

Corn Meal Agar (CMA)

Analysis: Colony culture

Tubing: 1/4-in ID

For a list of laboratories that can provide agar plates and analyze samples, visit www.skcinc.com/lablocations

References

Macher, J., (ed.) Bioaerosols: Assessment and Control, ACGIH, 1999

Samimi, B. and Shufutinsky, A., "Comparison of the Thermo-Andersen N6, the Aerotech A6, the SKC BioStage, and the SKC Micromedia Viable Samplers in Collecting Airborne Fungal Spores," AlHce 2005, San Diego, CA, Final Program, p. 43

Yao, M. and Mainelis, G., "Analysis of Portable Impactor Performance for Enumeration of Viable Bioaerosols," Jnl. of Occup. and Env. Hyg., 4:7, 2007, pp. 514-524, DOI: 10.1080/15459620701407388

Learn more at www.skcinc.com!

Operation

The BioStage impactor is easy to use. Its barbed outlet allows fast and easy connection to a vacuum pump, and it has a threaded hole in the base plate through which it can be mounted via a mounting bracket on the QuickTake 30 pump or directly on a tripod stand. The SureLock positive seal keeps the jet classification stage and agar plate securely in place and prevents leakage during sampling. Sampling is as simple as sealing an agar plate inside the BioStage, connecting the impactor to a pump operating at the appropriate flow rate, sampling for two to five minutes, removing the agar plate, and sending it to a qualified laboratory for analysis.

Ordering Information

Description	Cat. No.
BioStage* single-stage viable cascade impactor	225-9611
BioStage Pump Kit includes BioStage,* QuickTake 30 pump	228-9530K
with Li-Ion battery pack,** AC charger/adapter (100-240 V),	
mounting bracket with inlet adapter, calibration adapter,	
rotameter, cassette/tubing adapters, and deluxe carry case	
Accessories	
QuickTake 30 Sample Pump,*** Rotameter, and	228-9530A
Charger 100-240 V	
Calibration Adapter for BioStage, allows tubing	P33100
to connect to BioStage inlet.	
Tripod Stand	228-506
Mounting Bracket for QuickTake 30, holds BioStage	228-9531
in place on pump during sampling, includes thumbscrews	

- Requires microbiological media supplied by analytical laboratories. For lab list, go to www.skcinc.com/lablocations
- ¥ Do not operate or charge in hazardous locations. Not UL Listed for intrinsic safety; not CE marked
- ** QuickTake 30 sample pump contains Li-lon batteries and is subject to special shipping regulations.

