

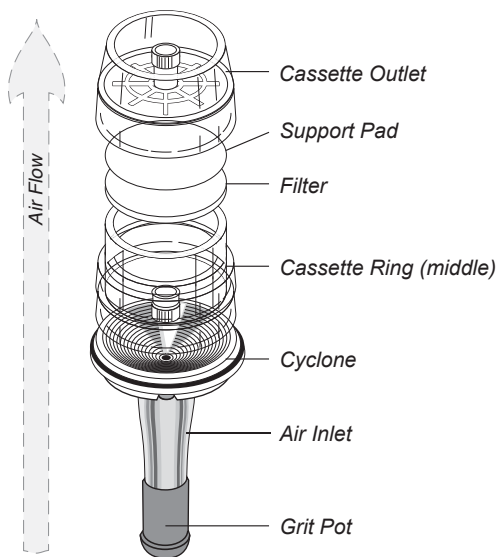
Aluminum Respirable Dust Cyclone

Meets OSHA Criteria, Specified in NIOSH Methods



The SKC Aluminum Cyclone is a lightweight respirable dust sampler that is placed into the middle ring of a three-piece cassette loaded with the appropriate filter. When attached to a sample pump, respirable particles collect on the filter and larger particles fall into the grit pot to be discarded. Available in 25 or 37 mm, the SKC Aluminum Cyclone provides sharp size selection of the respirable fraction. The SKC Aluminum Cyclone eliminates the electrostatic problems associated with nylon (non-conductive) cyclones and allows the cyclone to sample particles more efficiently.

ACGIH, NIOSH, the European Standard Committee (CEN), and the OSHA silica rule specify a respirable collection efficiency curve with a median cut-point of 4 μm . A leading aerosol research organization calibrated the SKC Aluminum Cyclone. Results showed that using the cyclone at a flow rate of 2.5 L/min provided the optimum match to the ISO 7708/CEN respirable criteria. *Publication available upon request.*



Exploded view of Aluminum Cyclone-filter cassette assembly

- **Operates at 2.5 L/min to conform to the ISO 7708/CEN criteria**
 - Meets requirements in the OSHA silica rule (page 16439)
 - Suitable for ACGIH respirable TLVs
- **Small and lightweight**
 - 2.6 x 1.5 inches (6.6 x 3.8 cm)
- **Eliminates adverse electrostatic effects**
- **Specified in NIOSH 7500 for silica and NIOSH 0600 for respirable particulates**
- **Used with an open-face three-piece cassette for more even particle deposition on the filter**
 - Available in 25 or 37 mm
 - Inserts into middle ring of cassette

Sample Time:	Varies
Sample Rate:	2.5 L/min for 4- μm cut-point (OSHA silica rule)
Sample Pump:	Universal XR or AirChek Series
Sample Media:	25 or 37-mm filters in 3-piece cassettes
Tubing:	1/4-inch ID

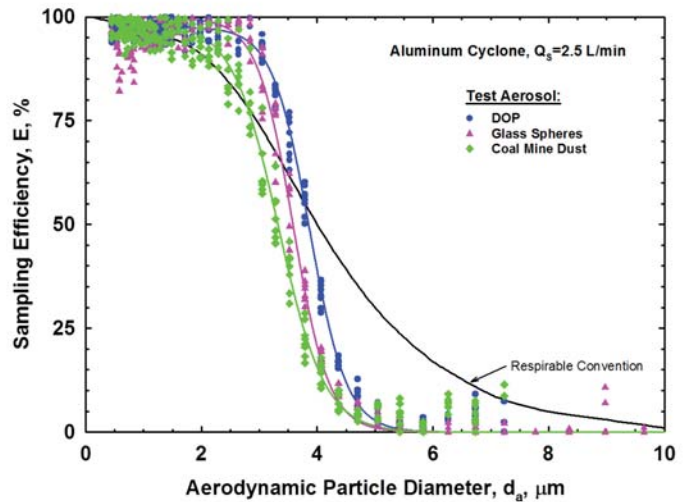
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SKC Aluminum Cyclone Performance

The Aluminum Cyclone conforms to the ISO 7708/CEN criteria included in the OSHA silica rule for standard particle size selection with a 50% cut-point of 4 µm at 2.5 L/min (bias within ISO/OSHA/NIOSH requirements).

Performance data of the Aluminum Cyclone relative to the ISO 7708/CEN criteria adopted by OSHA, ACGIH, and other international agencies has been published in the *Journal of Aerosol Science*, 29, 1998.



Collection efficiency relative to ISO 7708/CEN criteria in OSHA silica rule and ACGIH TLVs

References

Harper, M., Fang, C.-P., Bartley, D. L., and Cohen, B. S., "Calibration of the SKC, Inc. Aluminum Cyclone for Operation in Accordance with ISO/CEN/ACGIH Respirable Aerosol Sampling Criteria," *J. Aerosol Sci.*, Vol. 29, Suppl. 1, 1998, pp. S347-S348, <http://doi.org/b958xd>, reprints are available from SKC.

NIOSH Method 7500

www.cdc.gov/niosh/docs/2003-154/pdfs/7500.pdf

NIOSH Method 0600

www.cdc.gov/niosh/docs/2003-154/pdfs/0600.pdf

Liden, G., "Evaluation of the SKC Personal Respirable Dust Sampling Cyclone," *Appl. Occup. Environ. Hyg.*, Vol. 8, Issue 3, 1998, pp. 178-190, <http://doi.org/cj5thc>

Trakumas, S., et al., "Performance Assessment of Personal Respirable Cyclone Samplers," AIHce Presentation 191, 2003, <http://bit.ly/1Qb1W1x> (PowerPoint presentation)

OSHA Final Rule on Respirable Crystalline Silica, www.osha.gov/silica/

Ordering Information

Description		Cat. No.
Aluminum Cyclone†	25 mm	225-01-01
	37 mm	225-01-02
Accessories		
Filter Cassette Holder, for 25 and 37-mm cyclones		225-1
Calibration Adapter, for 25 and 37-mm cyclones		225-01-03
Three-piece Filter Cassettes	25 mm	225-3-25LF
	37 mm	225-3LF
Replacement O-rings, for 37-mm cyclones, pk/5		P22501
Replacement Grit Pot, pk/25		P225013

† Three-piece cassettes are required for use with SKC Aluminum Cyclones.

SKC Limited Warranty and Return Policy

SKC products are subject to the SKC Limited Warranty and Return Policy, which provides SKC's sole liability and the buyer's exclusive remedy. To view the complete SKC Limited Warranty and Return Policy, go to <http://www.skcinc.com/warranty>.

