

IMPACTOR INLET FOR AEROSOL RESEARCH MODEL 3306

MIMICS TYPICAL CASCADE IMPACTOR
MEASUREMENT CONDITIONS

The Impactor Inlet Model 3306 is an accessory for use with TSI Aerodynamic Particle Sizer® (APS) spectrometers. The Impactor Inlet combines a single-stage impactor and a sophisticated APS sampling probe into one instrument. It directs a small aerosol sample to the spectrometer for size distribution measurement. The remaining aerosol passes through a single-stage impactor with an afterfilter, allowing you to perform mass or chemical analysis.



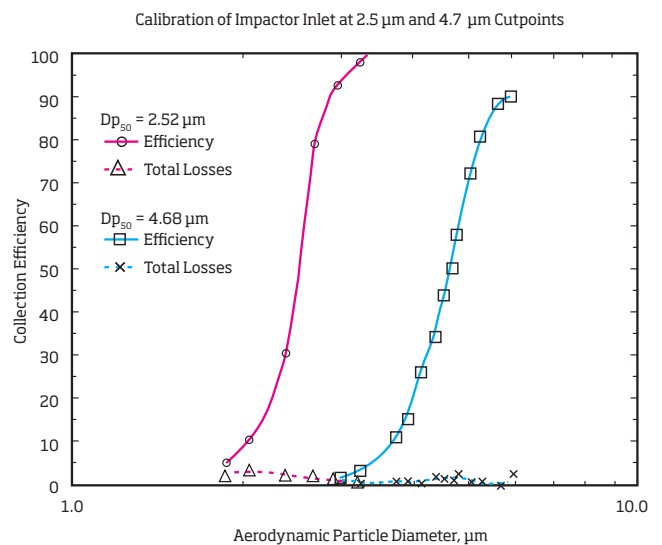
Applications

The Model 3306 Impactor Inlet should be used with the APS in applications requiring collection of a sample for analysis. Sample may be size-segregated. Specific applications include:

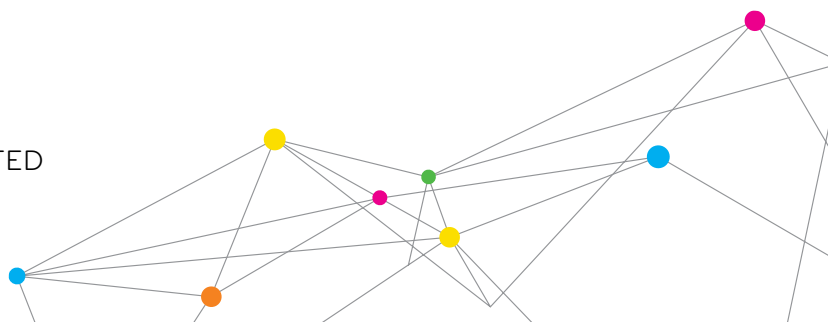
- + Inhalation toxicology
- + Ambient monitoring
- + Analysis of MDIs, DPIs, and other pharmaceutical aerosols
- + Atmospheric studies
- + Indoor air-quality monitoring
- + Basic research

Features and Benefits

- + Collects sample for mass or chemical analysis
- + Includes two inlet throats
- + Works with any APS spectrometer



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SPECIFICATIONS

IMPACTOR INLET FOR AEROSOL RESEARCH MODEL 3306

Impactor Cut Points

2.5 or 4.7 μm , aerodynamic diameter
(Contact your TSI representative for additional cutpoints)

Typical Total Particle Loss at Impactor

<3% (monodisperse oleic acid)

Collection Filter

47-mm glass fiber

Flow Rates

| | |
|------------------------------|-------------|
| Inlet flow | 28.3 L/min |
| Collection-filter flow | 28.24 L/min |
| APS sample flow | 0.062 L/min |
| Makeup flow to APS | 4.94 L/min |
| Effective APS dilution ratio | 80 to 1 |

Construction Materials

Anodized aluminum, stainless steel, glass fiber (filter material), Buna-N, nylon

Vacuum Source

460 mm Hg at 28.3 L/min

Power Requirements

None (flow created by APS and external pump, not included)

Dimensions (L x W x H)

30.5 cm x 36.8 cm x 39.4 cm (12 in. x 14.5 in. x 15.5 in.)
with MDI inlet throat

Weight

7.0 kg (15.5 lb.)



The Model 3306 with standard throat installed is shown atop a Model 3321 APS spectrometer. The spectrometer is sold separately.

Specifications are subject to change without notice.

APS is a trademark, and Aerodynamic Particle Sizer, TSI, and the TSI logo are registered trademarks of TSI Incorporated.

Operation

As shown in the flow schematic below, the Model 3306 draws aerosol into the inlet throat at 28.3 L/min. The aerosol is then sampled isokinetically by the spectrometer at 0.062 L/min. Filtered makeup air mixes with the sample before it is delivered to the spectrometer for aerodynamic size measurement.

The remaining 99.8 percent of the aerosol passes through a single-stage impactor with a 47 mm glassfiber afterfilter.

The impactor jet-plate can be changed easily to vary particle cutpoints.

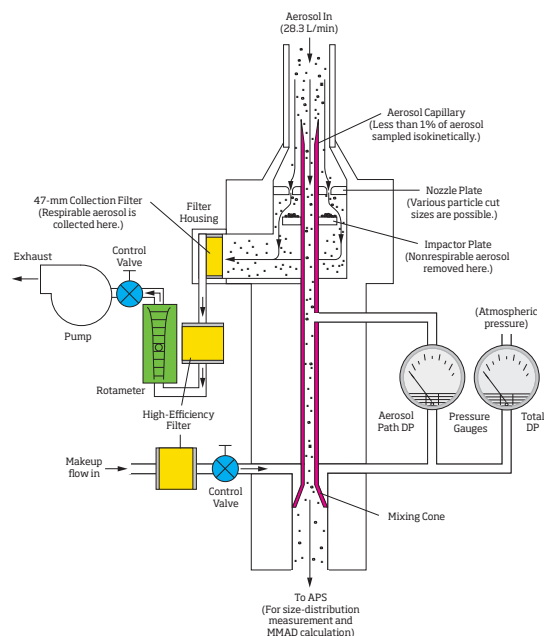
TO ORDER

Impactor Inlet for Aerosol Research

| Specify | Description |
|---------|--|
| 3306 | Impactor Inlet with standard and MDI throats |

Accessories

| Specify | Description |
|---------|-------------|
| 3033 | Vacuum Pump |



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| | | | |
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