

PRODUCT

INFORMATION

Model 3306 Impactor Inlet for Pharmaceutical Research

The Model 3306 Impactor Inlet is an accessory for use with TSI Aerodynamic Particle Sizer® (APS) spectrometers and the TSI Aerosol Time-of-Flight Mass Spectrometer (ATOFMS). 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.

OPERATION

As shown in the flow schematic on the back of this document, the Model 3306 draws aerosol into the USP 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.

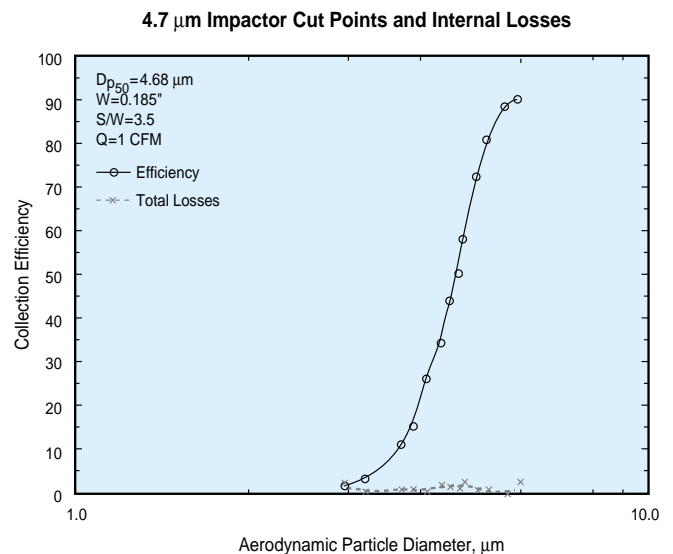
The remaining 99.8 percent of the aerosol passes through a single-stage impactor with a cut point of 4.7 µm. (Ask your TSI representative about additional cut points.) A 47-mm glass-fiber afterfilter then collects the respirable fraction for analysis.



APPLICATIONS

The Model 3306 Impactor Inlet is an excellent tool for pharmaceutical research. When used with the APS spectrometer, it enables researchers to measure the aerosol size distribution and the dosage delivered by metered dose inhalers (MDI) and dry powder inhalers (DPI).

Mimics typical cascade impactor measurement conditions for MDI and DPI analysis



SPECIFICATIONS

50% cut point: 4.7 μm , aerodynamic diameter

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

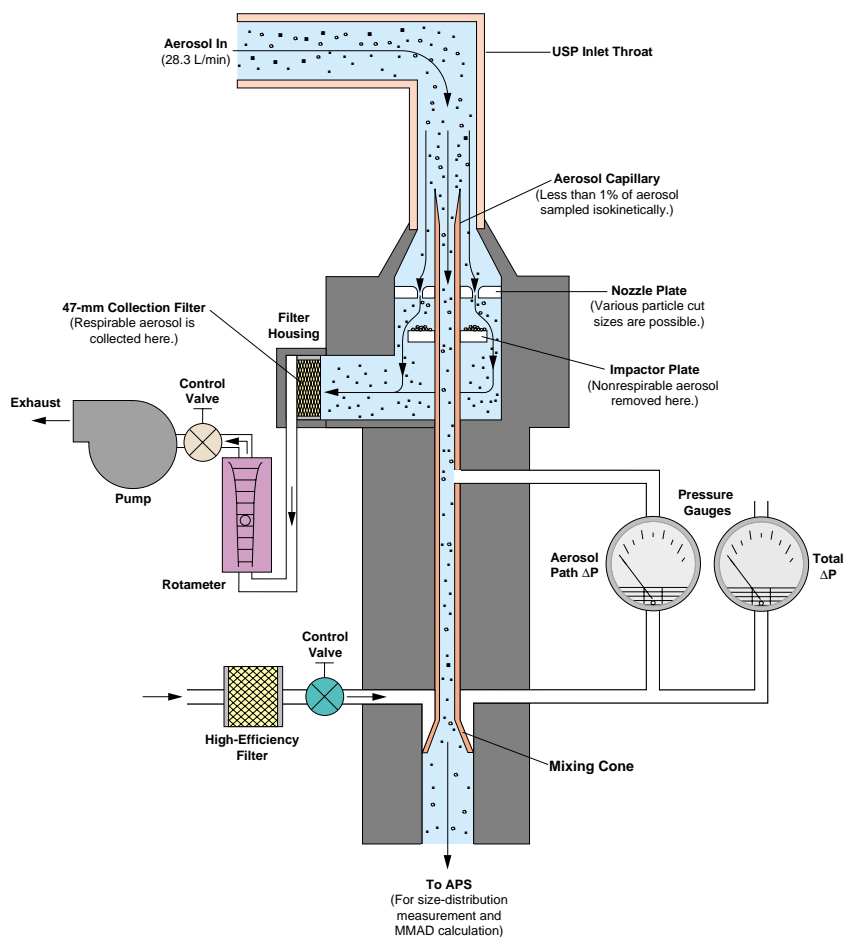
Vacuum source: 460 mm Hg @ 28.3 L/min

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

Dimensions (LWH): 30.5 cm \times 36.8 cm \times 39.4 cm
(12 in. \times 14.5 in. \times 15.5 in.)

Weight: 7.0 kg (15.5 lb)

Specifications are subject to change without notice. TSI, the TSI logo, and Aerodynamic Particle Sizer are registered trademarks of TSI Incorporated.



TO ORDER

Specify	Description
3306	Impactor Inlet with standard and MDI throats

Optional Accessory

Specify	Description
3033	Vacuum Pump



The Model 3306 with MDI throat installed is shown at left atop the Model 3321 APS spectrometer. The spectrometer is sold separately.



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