



® Knowledge Beyond Measure.

# Mini-MOUDI™ Impactors

Models 135-6B, 135-8B, 135-10B



## Available with 6, 8, and 10 cascade impaction stages

The Mini-MOUDI™ Impactor models are designed for sampling and collecting size-fractionated aerosol particle samples for gravimetric and/or chemical analyses. The various versions of the Model 135 impactors differ only by the number of stages and the last stage's cutpoint size.

The Mini-MOUDI™ Impactors, models 135-XB, can have 6, 8 or 10 stages, operating at a sampling flow rate of 2 L/min for a variety of sampling applications. The Mini-MOUDI™ Impactors have stages available with cut-point diameters of 0.056, 0.10, 0.18, 0.32, 0.56, 1.0, 1.8, 3.2, 5.6 and 10  $\mu\text{m}$ .

The Models 135-6B and 135-8B can be used with personal sampling pumps since they have a low pressure drop. The Model 135-10B requires a vacuum pump due to the larger pressure drop associated with the last two stages.

## Applications

- Personal exposure particle monitoring
- Work place aerosol analysis
- Cigarette and e-cigarette smoke characterization
- Indoor residential aerosol studies

## Features and Benefits

- 2-L/min sampling flow rate
- Up to 10 impactor stages with nominal cutpoints at 0.056, 0.10, 0.18, 0.32, 0.56, 1.0, 1.8, 3.2, 5.6 and 10  $\mu\text{m}$ , plus a final filter
- 37-mm diameter semicircular impaction substrates
- 37-mm final filter
- Impactor is made of anodized aluminum for light weight, durability and nozzle dimensional stability
- Low pressure drop
- Sharp cut-off characteristics
- Open inlet cowl accessory available
- Low inter-stage losses



## Specifications

# Mini-MOUDI™ Impactors

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Half of the area is the impaction plate for the stage above while the other half contains the nozzles for that stage. Subsequent stages are alternated in orientation so that there is always an impaction surface below each set of nozzles. This arrangement allows for a very compact cascade impactor design (Figure 1).

The Model 135 impactors can accept a variety of sampling substrates, including aluminum foils, thin plastic films and membrane filters. The substrates are 37-mm in diameter with a semicircular hole in one half of the substrate (Figure 2).

The stages are designed to prevent cross-flow interference between adjacent nozzles. The result is sharp cut-size characteristics not available with other cascade impactors that are less well designed aerodynamically (Figure 3).



Figure 1. Stage body design



Figure 2. Impaction substrate

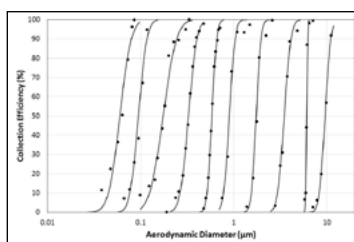


Figure 3. Impactor efficiency curves

## Specifications

	Model 135-6B	Model 135-8B	Model 135-10B
Impactor Stages	6	8	10
Pressure Drop, kPa (w/o final filter)	2.5	10	40
Cut-point Diameter, µm	0.56, 1.0, 1.8, 3.2, 5.6, 10	0.18, 0.32, 0.56, 1.0, 1.8, 3.2, 5.6, 10	0.056, 0.10, 0.18, 0.32, 0.56, 1.0, 1.8, 3.2, 5.6, 10
Dimensions (D x H)	66 x 62 mm (2.6 x 2.4 in.)	66 x 77 mm (2.6 x 3.0 in.)	66 x 85 mm (2.6 x 3.3 in.)
Weight (total)	0.225 kg (0.50 lb.)	0.325 kg (0.72 lb.)	0.415 kg (0.91 lb.)
Vacuum Pump Required	4.8V, 2.15 A-h NiMH battery	4.8V, 2.15 A-h NiMH battery	115 or 230 VAC, 50-60Hz, 0.07 kW

## Environmental Operating Conditions (impactor and cabinet)

10–50°C (50–122°F)

10%–90% RH (non-condensing)

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## To Order

### Mini-MOUDI Impactors

Specify	Description
135-6B	Mini-MOUDI Impactor, 6 Stage, Inlet Cone
135-8B	Mini-MOUDI Impactor, 8 Stage, Inlet Cone
135-10B	Mini-MOUDI Impactor, 10 Stage, Inlet Cone

### Accessories

Specify	Description
0135-75-5007	Vacuum Pump, 135-6,135-8, 110V charger
0135-75-5008	Vacuum Pump, 135-6,135-8, 220V charger
135-10-FTG-KIT	Fitting kit for using 135-10 with 3033
3033	Vacuum Pump (for 135-10B)
0135-01-0014	Al Foil Substrates, Pkg 300
0135-01-5203	Glass Fiber Filters, 37-mm, Pkg 500
0135-78-0021	Inlet Cowl accessory (replaces cone)
0135-78-0060	Punch For Half Round Foils, for 135