

Powder and Dust Dispersers

This type of generators disperse dry dust and powders for applications that need continuous and basic stable dosing with high accuracy. These aerosols are commonly used in basic aerosol science, filter testing, industrial processes, and quality assurance tasks.

Model	3410U	3410L	3400A	9309
Particle Size Range (μm)	0.2 to >100	0.2 to >100	0.5 to 40	N/A
Particle Mass Concentration	50 to 20,000 mg/m^3	0.5 to 160 g/m^3	10 to 100 mg/m^3	N/A
Nominal Flow Rate (L/min)	8 to 35	25 to 67	5 to 15	Adjustable pressure up to 16 bar
Note	Refillable during operation. Cover included to keep dust dry. Modular.		Fluidized bed. Not compliant with RoHS	Fluidized bed

Fluidized Bed Aerosol Generator

Model 3400A

Disperses powders with stable concentrations for dust experiments or particle seeding.

The Fluidized Bed Aerosol Generator (FBAG) is a general-purpose powder disperser. It prepares any dry, free-flowing powder for dispersion in a gas. It disperses powders that range from 0.5 to 40 μm , with concentrations from 10 to 100 mg/m^3 . Unsurpassed constant output and concentration make the FBAG useful for inhalation toxicology studies, laser-velocimeter seeding, and filter testing.



Not compliant with RoHS.
Not sold in Europe.

Accessories (available separately):

Specify	Description
3012A	Aerosol Neutralizer
3074B	Filtered Air Supply
1502574	Replacement bronze beads (not RoHS compliant)

Dust Aerosol Generator

Model 3410

The Dust Aerosol Generator 3410 comes in two versions that differ in the way the powder is fed to the disperser.

The Dust Aerosol Generator 3410 disperses dry dust and powders for applications that need continuous and stable dosing with high accuracy. The interchangeable dispersing units make it possible to disperse different materials (e.g. soot, TiO_2 , cellulose, or ISO 12103 test dust) at different output concentrations. A purged cover keeps the material dry even in locations with higher ambient humidity.

Both versions disperse the powder via an ejector nozzle with ceramic inlay to make it more resistant against abrasive material. Shear forces in the ejector nozzle disperse and de-agglomerate particles. In both models the reservoir can be refilled while in operation to accommodate any required operation interval.

The model 3410U is for poorly flowing powders at low dosing rates (50 mg/m^3 to 20 g/m^3). Here the powder is continually poured onto a metal ring where excess material falls off the side and back into the reservoir.

The model 3410L meters powder using a moving toothed belt. The well-defined spaces between the teeth ensure a constant and reproducible supply of powder and achieves mass concentrations of 0.5 to 160 g/m^3 .



Accessories (available separately):

Specify	Description
3074B	Filtered Air Supply
3410-DISL	Model L Dispersion Unit for 3410U
3410-DISU	Model U Dispersion Unit for 3410L
3411	Remote Control (for 3410U, 3410L, 3413U, and 3413L)
3413L	Full Enclosure (includes 3410L generator)
3413U	Full Enclosure (includes 3410U generator)