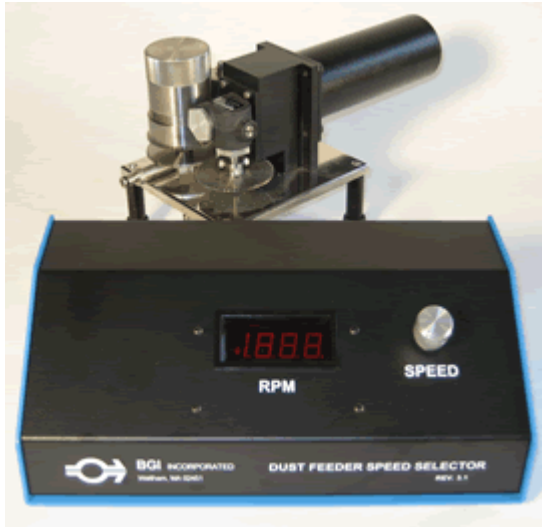


Wright Dust Feeder II

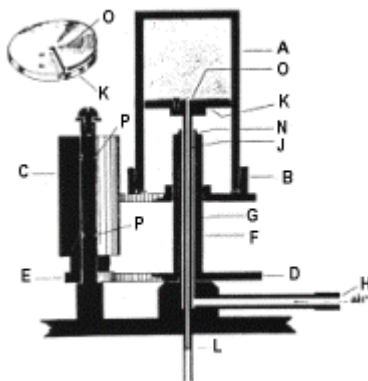


WDF Complete with Control Module

Dust is contained in the cylindrical holder (A) into which it is tightly packed. It has been found that any dust which is clean and dry with most particles below 10 micrometers diameter, can be packed in this way, and will form a stable cake; yet when the dust is scraped off the surface, it can be readily dispersed.

Dust is scraped into a groove in the surface of a scraper head (K). Along this groove a stream of air is passed so the dust is carried down the inner tube (J). At (L) it is passed through the jet which breaks up any remaining aggregates.

Scraping is carried out by rotating the dust holder (A) round the threaded spindle (F) through the intermediary of the gears (C), (E) and (D), which act as a differential gear and cause the holder to travel very slowly down the threaded spindle (F). In this way an extremely thin layer of dust is scraped off at each revolution of the holder (0.007") or 0.18mm. A variable speed motor provides adequate power for driving the mechanism over a speed range of about 1000:1.



Historical Drawing from Original Publication

The large dust chamber has an internal diameter of 1.5 inches (38mm). When very low concentrations are required the small chamber can be fitted which has an internal diameter of 0.530 inches. The small chamber and carbide cutter heads are supplied with the mechanism. The mini chamber has an internal diameter of 0.307 inches.

The unit is normally supplied for use with 120V, 60Hz/230V, 50Hz. Voltage is automatically selected via an internal sensor.





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Applications

- Basic Aerosol Research
- Filtration Studies
- Inhalation Research-Lung Physiology, Toxicology Therapy
- Pharmaceutical Aerosols
- Occupational Hygiene-Atmospheric Pollution
- Nuclear Science
- Calibration of Aerosol Samplers and Instruments
- Crop Research, Deposition Studies
- Meteorology

Features

- CARBIDE CUTTER HEADS NOW STANDARD
- New smaller accessory mini chamber for lower concentrations
- Extremely Stable Output Characteristics
- Broad Range of Output from: .0026 to 60.0 Grams/Hour of Unit Density Dust
- It is Utilized by all Manufacturers of Dusty Products who are Required to Conform with the Toxic Substances Act
- All Motor Speed Selectors are Dual Voltage and select automatically

Specifications	
Maximum width (Width of base plates)	4.75 in (12.06 cm)
Maximum length	10 in (25.4 cm)
Length of base plate	5.25 in (13.34 cm)
Height overall	7 in (17.78 cm)
Weight	4lb-15 oz. (2.24 kg)

Control Module	
Width	10.25 in (26.04 cm)
Depth	6 in (15.24 cm)
Height	3.5 in (8.89 cm)
Weight	4 lb-1 oz (1.84 kg)

Part#	Description
WDFII	Wright Dust Feeder
DF300	Mini Chamber Assembly

