# AIRPREP\*

Step into optimized aerosolized dispersion with the PITT-AG

**CONTROLS EMITTED PARTICLE SIZE** using elutriation

**EFFICIENT PARTICLE GENERATION** of airborne particulates, bacteria, pollen, molds, fungal spores, viruses and more

CUSTOMIZABLE (OR FLEXIBLE DESIGN)
Highly adjustable, dry dispersion
using a fluidized bed



Authorised Distributors in India:

MULTITECH ENVIRO ANALYTICAL LLP 3-14 SIC, AUTHORITY BUILDING, DISTRICT CENTRE, JANAKPURI, NEW DELHI-110058 PH.: 011-42461403 | WWW.MULTITECHENVIRO.IN SALES@MULTITECHENVIRO.IN Flexible design allows customization

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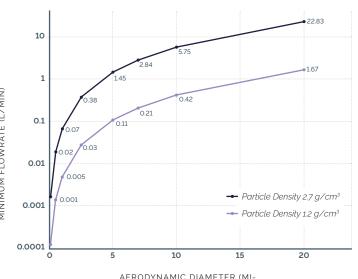
Fluidized bed with vertical elutriator

# AirPrep PITT-AG for Highly Customizable Aerosol Generation

- Controls cut-off size of disseminated particles
  - Alternative to wet dissemination

InnovaPrep's aerosol generator can disseminate a wide range of particle sizes from nanoparticles to course fraction based on user's powder size distributions.

#### Minimum Flowrate to Disseminate



AERODYNAMIC DIAMETER (MI-

Note: Data graph was generated using the AG-5025 Aerosol Generator, an earlier version of the PITT-AG aerosol generator. The PITT-AG and AG-5025 are functionally equivalent instruments.



# Streamline particle size distribution

InnovaPrep's aerosol generation technology enables you to tailor settings to achieve optimal particle dissemation to meet the needs of your unique use case.

- Weyel, D.A., M. Ellakkani, Y. Alarie, and M. Karol. 1984. An aerosol generator for the resuspension of cotton dust. Toxicol. Appl. Pharmacol. 76:544-547.
- ASTM method E2894-12: Standard Test Method for Applying Aerosolized Bacillus Spores as Dry Inocula to Inanimate Surfaces1
- Harnish, D. et. al., 2014, Standard method for deposition of dry, aerosolized, silica-coated Bacillus spores onto inanimate surfaces, J. Appl. Micro doi:10.1111/jam.12509
- Birch, E. and Bon Ki Ku, 2015, Aerosolization of Carbon Nanotubes Using an Acoustic Generator: Particle Generation and Properties, CDC/NIOSH DART

Contact us for more information:

CUSTOMERSERVICE@INNOVAPREP.COM 833.833.3763 | INNOVAPREP.COM

# INNOVAPREP Sample prep made simple

Innovaprep LLC 132 East Main Street, Drexel, MO 64742

An ISO 9001:2015 Certified Company

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PITT-AG

### Workflow



#### CONNECT

Connect air and controls to the PITT-AG.



#### LOAD

Load material for dispersion. Test dust can be easily loaded into system.



#### DISSEMINATE

Choose amplitude and flow rate

Note: Flammable or volatile substances should never be aerosolized using the PITT-AG.



Load Step: Test dust can be easily loaded into system.

- 120V AC, 360W
- Frequency response range: 30-3000 Hz
- Flow rate range: 0.20-25 Lpm
- Maximum compressed air input: 10 PSIG
- 0.02 µm internal air filter
- Diaphragm diameter: 6 inches;
   4.75 inch active area

# PITT-AG Advantage

RUGGED, EASY TO USE, HIGHLY CONFIGURABLE DESIGN

The PITT-AG by InnovaPrep is an improved PITT-3 type aerosol generator, based upon the original design by Weyel et al. (1984), to create a cotton dust aerosol.

#### Key Benefits

- Easy remote operation if enclosed in an aerosol chamber.
- Precise Control Novel air-injection methods to allow concentrations of three or more milligrams per cubic meter to be maintained for extended durations in closed systems.
- Easy Decontamination and Cleaning Fully enclosed drivers and generators are made from T304 stainless steel.

#### Customizable Operation

- Diaphragms in latex or thin metal.
- · Gaskets available in Teflon or butyl.
- Fleixble Signal generation use almost any computer or audio signal generator to create variable waveforms.

#### Compatible with Wide Array of Particles

- Input materials like Celite 545, talc, Arizona road dust, fluorescein, grain dust, dry Bacillus globigii spores, and dry polystyrene microspheres allow users to control their particle size distributions.
- Users can aerosolize their own materials or re-aerosolize particles collected from air sampling.



**Applications** 

AEROSOLIZED PARTICULATE DRY POWDER DISPERSIONS

DISEASE MONITORING

HYGIENE MONITORING

BIOLOGICAL MATERIAL DISPERSIONS

ENVIRONMENTAL BIOSURVEILLANCE