





Compliant with: EN 14683 Annex B, EN 1822

Aerosol Generator*

DDSAERO

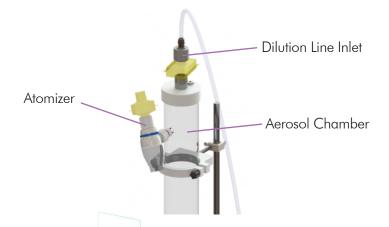
DDS AERO is a pneumatic-type nebulizer that produces monodisperse and polydisperse aerosol for different applications.

DDS AERO has 2 independent pumps that can work together or separately: Aerosol (Atomizer) Line 1 and Dilution Line 2.

Features:

Dilution line 2 is used to increase airflow which ensures the drying of the particles and reduces the overall humidity inside the Aerosol Chamber.

Connection of **DDS Aero** to the Atomizer:



DDS AERO is used to generate aerosolized bacteria for testing Bacterial Filtration Efficiency (BFE).

DDS AERO can work with different kinds of nebulizers/ atomizers (Aerosol atomizer – with manual aerosol size regulator (3 Positions) – Ideal for EN14683 is usually used).

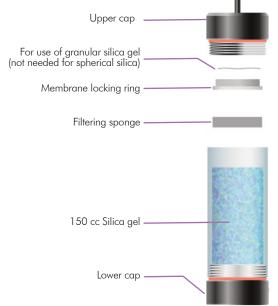


*For water and salt aerosol generations
Flow and working pressure regulation through manual valves.

Drying Trap of Aerosol Generator

The sampler protection traps dry the air and prevent damages to the pumps and HEPA filters.

The trap must be assembled as shown in the figure here below:













Main Panel Details Air Internal Temperature meter Aerosol Line Pressure Regulator Dilution Line Pressure Regulator Aerosol Line Pressure Meter Dilution Line Pressure Meter Aerosol Air Flow Regulator Dilution Air Flow Regulator Air Inlet Aerosol Line Air Inlet Dilution Line Humidity Trap Aerosol line Humidity Trap Dilution line Dilution Air Output Aerosol Air Output

Back side with HEPA filters



HEPA filters have 99.999% abatement efficiency

Example of Application: DDS Aero connected to LASKIN for compressed air

The **DDS AERO** Dynamic Dilution System Particle-Generator is designed and realized also to be suitable for HEPA/ULPA filters as described in EN 1822 (accessories required).

DDS AERO is equipped with POF HEPA filters for particle air free generation and protection of ambient working area avoiding room contamination.



DDS AERO is also zero air generator, it can filter particles with Hepa filters up to 99.999 % and can have a line with silica gel dryer, purafilter with activated carbon mixed inside for pollutant abatement and air purification.





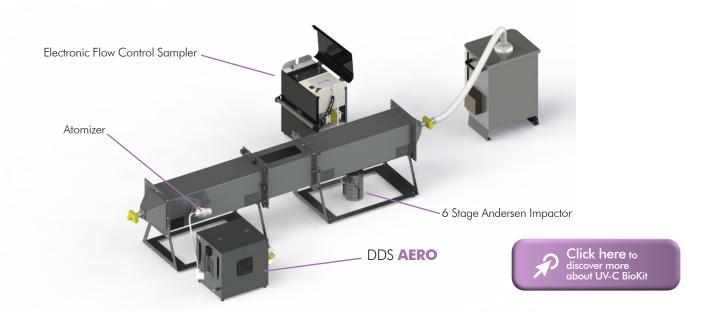


TCR TECORAL POLLUTION CHECK

DDS AERO Aerosol Generator

Example of Application: UV-C Light Ultraviolet Sampling System

UV-C BioKit is a sampling system for monitoring the Bioaerosol (Virus, Bacteria, Fungi, Spores, Protozoa Pollen, Algae) in a UVGI in-duct device using a UV-C Light Ultraviolet Lamp Irradiation Chamber, 6 Stage Andersen Impactor, Aerosol Generator connected to Atomizer and also an Electronic Flow Control Sampler.



APPLICATIONS



Filter testing;



Instruments Calibration;



Vacuum cleaners test performance;



Bacteria materials efficiency;





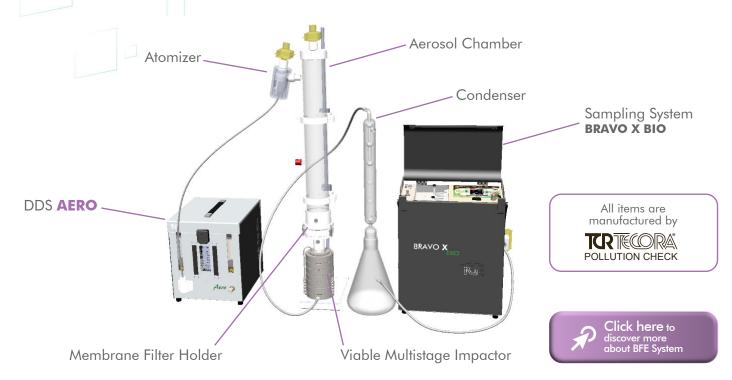






Example of Application: BFE System Equipment

As described in the EN 14683 Technical Standard, Annex B (BFE Bacterial Filtration Efficiency), the sampling line is composed as shown in the figure here below:



TECHNICAL FEATURES

Particle size range	10 nm to 10.000 nm
Dimensions L x W x H	300 x 300 x 300 mm
Weight	5 Kg
Pump Line 1	Membrane pump type
Pump Line 2	Membrane pump type
Pressure Line 1	0 – 1 bar
Pressure Line 2	0 – 1.2 Bar
Flow Line 1 – Atomizer	0 – 4 l/min (base version) 0 – 7 l/min (high version)
Flow Line 2 - Dilution	0 – 22 l/min
Dryer line 1	Spherical Silica Gel
Dryer line 2	Spherical Silica gel (Charcoal for gases dilution)

CODES

Aerosol generator model DDS AERO	AC99-120-0000SP
Spare kit, HEPA filters	AC99-120-0005SP
Aerosol chamber made in Pyrex Glass	AC99-120-0001SP
Andersen Cascade Impactor 6 Stages (viable)	AC99-120-0002SP
Condenser made in Pyrex Glass	AC99-120-0003SP
Bravo X BIO Sampler	AA99-000-0740SP







