

AGC Cyclone

CYCLONE TYPE AEROSOL GENERATOR

Table of Contents

- 01 AGC Cyclone
- 02 Operating Principle of Cyclone



AGC Cyclone

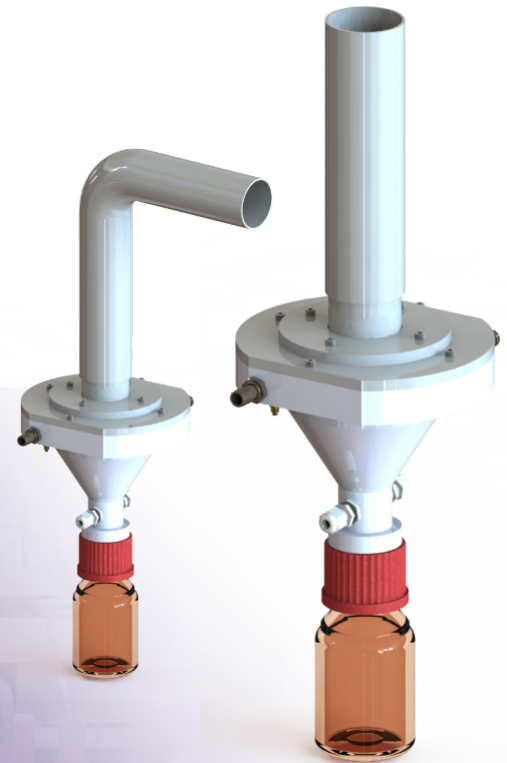
CYCLONE TYPE AEROSOL GENERATOR

Compliant with:

UNI EN 149, OECD 403, OECD 413, ISO 12103-1, ISO 5011, VDI guideline 3491-3.

Generation of solid particles out of suspensions, solutions and biological agents with vertical or curved drying section.

A special nozzle developed by TCR TECORA® enables the atomization of salt solutions with highest dosing constancy.



FEATURES

- > Easy to operate;
- > Excellent short-term and long-term dosing constancy;
- > Wide adjustable particle size range;
- > Large bottle (0,5 and 1,1L);
- > High reproducibility;
- > Compact size, miniature design;
- > Little maintenance required;
- > Reduces operating costs.

TECHNICAL FEATURES

Volume flow	3-10 L/min Line 1 3-10 L/min Line 2 Possible to mix different types of aerosols
Weight	about 2,5 Kg
Particle material	NaCl, KCl, biological agents and other suspensions
Dosing time	Several hours (according to the pressure applied)
Particle number concentration (max)	Line 1 - 10^7 particles/cm ³ Line 2 - 10^7 particles/cm ³
Particle size range	Up to 15 μ m
Carrier Gas	Compressed air
Pressure	4-8 bar
Volume flow (additional)	6-20 L/min (with drying column)
Different aerosol outlet	Vertical and curved sections Split version for double exposition chamber





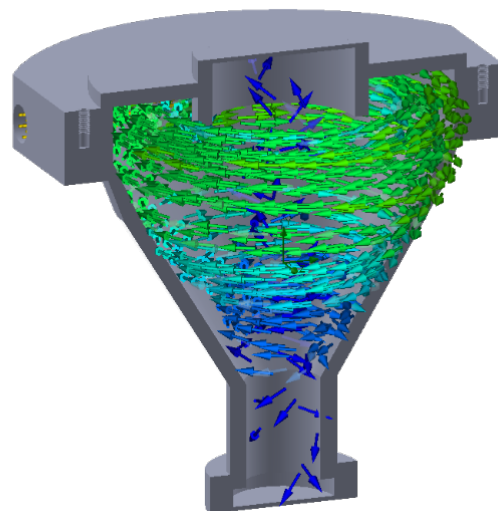
OPERATING PRINCIPLE OF CYCLONE:

A cyclone is a centrifugal separator in which particles, due to their mass, are pushed to the outer edges as a result of centrifugal force. Incoming air is automatically forced to adopt a fast-revolving spiral movement.

This double spiral movement consists of an outer stream, which flows downwards in a spiral, and an inner stream, which flows upwards in a spiral.

At the interchange between both streams, air passes from one stream to the other.

The particles which are present in the air are forced to the outer edges and leave the separator via a collection device fitted to the bottom of the separator.



INSTRUMENT and CODES

Aerosol generator with cyclone 0,5 L with vertical drying section. Generation of solid particles out of suspensions, solutions and biological agents	AC99-122-1000SP
Aerosol generator with cyclone 1,1 L with vertical drying section. Generation of solid particles out of suspensions, solutions and biological agents.	AC99-122-1001SP
Aerosol generator with cyclone 0,5 L with curved drying section. Generation of solid particles out of suspensions, solutions and biological agents.	AC99-122-1002SP
Aerosol generator with cyclone 1,1 L with curved drying section Generation of solid particles out of suspensions, solutions and biological agents.	AC99-122-1003SP
DDS Aero (Compressed Air), accessories	AC99-120-0000SP
Passive Zero Air System (Drying System, Accessories)	AC99-121-0012SP

APPLICATIONS

- > Filter industry (car interior filters, engine air filters, respiratory filters)
- > Chemical and pharmaceutical industry (drugs mixing and production)
- > Aerosol research
- > Generation of tracer particles
- > Toxicologic field: benefit of using different toxic particles and evaluation of risk assessment.

