

Condensation Fog Generator

CFG 291



Fog generator CFG 291 with one spot probe for uniform, low-pulse fog output.

The mobile fog generator CFG 291 is used to generate a highly visible, stationary fog for visualising air flows. It combines the handy design of the previous model CFG 290 with optimised fluid guidance and a specially developed evaporator.

The fog generator is primarily used for the initial acceptance and routine inspections of cleanroom systems in accordance with the standard series ISO 14644 or guideline VDI 2083-3 in order to detect leaks in the transition areas of cleanroom elements, to prove the presence of laminar displacement flow or to visualise the overpressure level of cleanrooms.

Applications

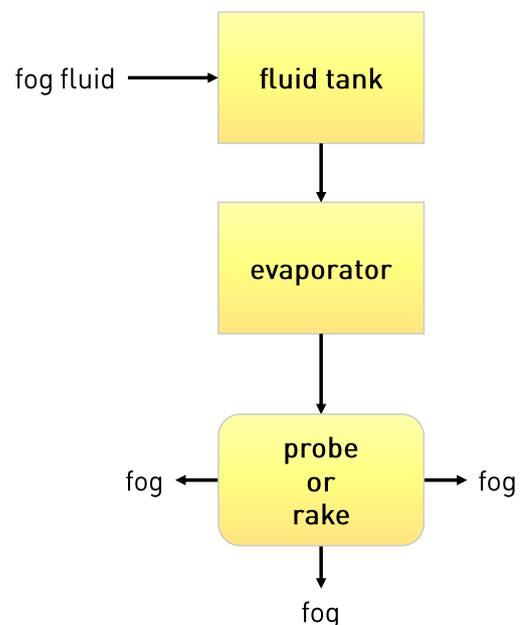
- visualisation of air flows in rooms
- standard-compliant acceptance and routine testing of cleanroom systems
- visual leak testing of rooms or enclosed areas
- function testing of various sensors (smoke detectors, PM sensors)

Features

- operation in different orientations possible (hermetically sealed fluid tank)
- nearly continuous operation (use of replaceable batteries)
- easy on-site replacement of the evaporator cartridge by the customer
- low-impulse fog input into ambient air stream (special discharge probe)

Principle of operation

The TopFog fog fluid (aqueous mixture of polyhydric alcohols) is transported from the fluid tank into an evaporator cartridge, where it vaporises at a temperature of about 300 °C and expands into the cooler one spot probe. The fog is formed in this by homogeneous condensation and agglomeration.



Functional principle of the fog generator CFG 291.



Specifications

Details

Fog

The fog of the CFG 291 can be released either via the outflow probe (simple, punctual release) or via a distribution rake (multiple, punctual release).



Discharge of the fog with the help of the one spot probe of CFG 291.



Discharge of the fog with the help of the CFG 291 distribution rake.

The generated fog is highly visible and has a sufficiently high durability to allow photo or video documentation of the air flow.

Fog fluid

The fog fluid TopFog is non-toxic, sterile, free of oil and grease and evaporates after a sufficient time without leaving any residue. Depending on the application, different fog densities may be required.

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For the generation of dense fogs, the fog fluid TopFog Regular is particularly suitable, while the fog fluid TopFog Light is recommended for the generation of more transparent fogs.

Design

The CFG 291 fog generator is powered by commercially available lithium-ion rechargeable batteries which can be easily removed and quickly replaced with recharged batteries. The external charging of secondary batteries thus enables almost continuous operation.

CFG 291 is designed in such a way that, in the event of maintenance, the individual main component - evaporator cartridge - can be replaced easily by the user. This keeps the downtime to a minimum.

Cleanroom

The CFG 291 is a component of the Topas clean room measurement set. Further information can be found in the corresponding [product sheet](#).

Accessories (optional)

- fog fluid TopFog Regular (for dense fogs)
- fog fluid TopFog Light (for transparent fogs)
- distribution rake

Technical specifications

evaporator temperature	~ 300 °C
substance capacity	60 ml
substance usage	~ 1,7 ml/min
fog fluid	aqueous mixture of polyhydric alcohols
power supply	lithium-ion accumulator; 3 cells
cell parameter	3,7 V; 3,0 Ah; 11,1 Wh; model 18650 length 68,5 ... 69,5 mm; PCB-protected; min. cut-off current: 10 A
dimensions (w x h x d)	440 x 120 x 70 mm
weight	1,2 kg
normative references	ISO 14644, VDI 2083-3

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QMS certified according
to DIN EN ISO 9001.



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