



Name of the Technology: Six-stage viable sampler and sampling probe for BFE testing of mask

Summary: A testing setup for bacterial filtration efficiency (BFE) of mask is developed. This setup includes a novel sampling probe and a six-stage viable sampler (having cutoff-size of 7.1, 4.7, 3.0, 2.1, 1.1, 0.65 micron at 28.3 litre/min flow rate) designs in accordance with the IS 9473:2002, IS 19289: 2014, EN 14683:2019, and ASTM F2101-19 standards. The setup comprises of particle generation system, mixing and mask holding probe, six-stage sampler, differential pressure gauge, dryers, flow meter followed by air pump, etc. accommodated in laminar hood. This is the only six stage sampler system which can segregate particles of 3.0 micron size as stated in relevant standards, the cutoff of other sampler is not 3.0 micron.

Applications: For mask testing and air monitoring purposes

Advantages: Indigenous, first in India, impactor based sampler, sharp cutoff sizes, setup is in accordance with standards for BFE testing

Choose the Readiness level of the Technology:

Idea	Concept Definition	Proof of Concept	Prototype	Lab Validation	Technology Development	Technology Demonstration	Technology Integrated	Market Launch

Related Patents: Knowhow

Year of Introduction: 2019-2020

Broad Area/Category: Environmental engineering, health and safety instrumentation

User Industries: Manufacturer of health and safety related instrument, air monitoring equipment, mask testing laboratory, etc.



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