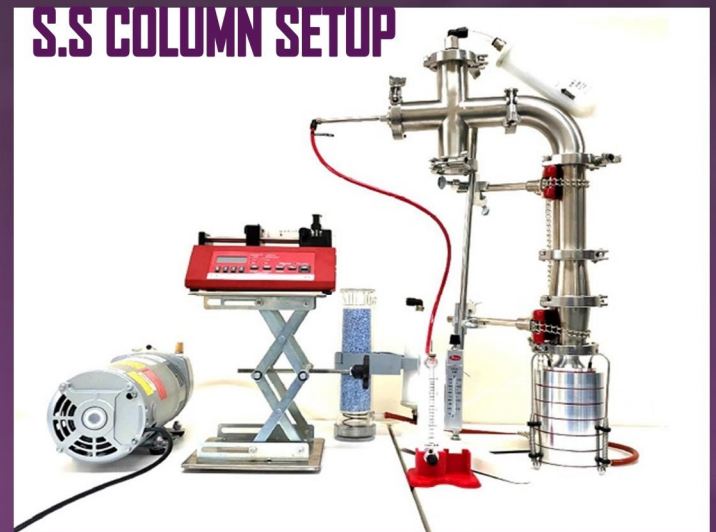




# BACTERIAL FILTRATION EFFICIENCY TEST



# ASTM F2101 IS 16289

**BFE System** manufactured by **CH Technologies (USA)** is used to perform the Bacterial Filter Efficiency Test of Medical Face Mask Material using *Staphylococcus aureus*. This system uses a quantitative method to determine the filtration efficiency of medical face mask materials. The maximum filtration efficiency that can be determined by this method is 99.9%.

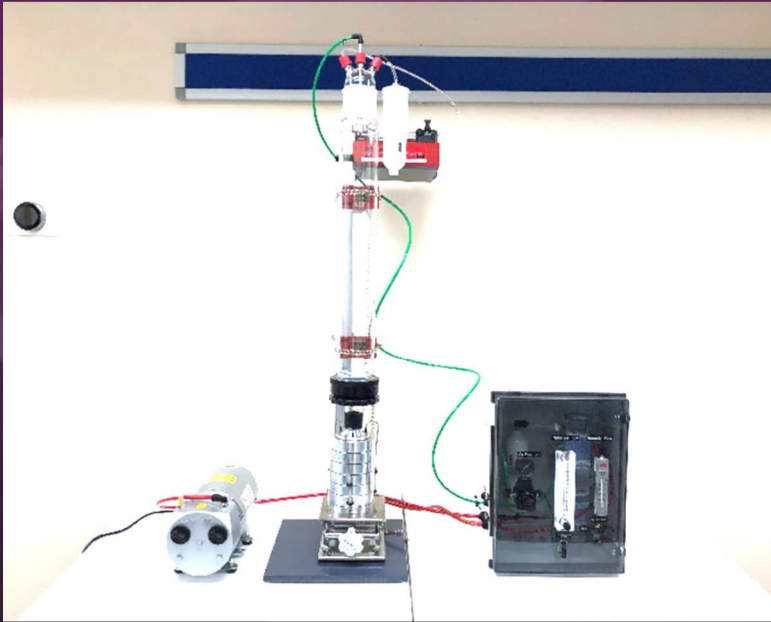
The system is available in two variations:

- **BFE System with Glass Column and 4 Jet BLAM Nebulizer.**
- **BFE System with Stainless Steel Column and 4 Jet BLAM Nebulizer.**



# GLASS COLUMN SETUP FOR ASTM 2101

## System Components:



- 4 Jet BLAM Nebulizer
- 6 Stage Viable Impactor
- Aerosol Glass Column
- Syringe Pump
- Calibrated Rotameters
- HEPA Filters & Dryer
- Vacuum Pump

## OPERATION:

- The liquid test article (Bacterial Solution) is loaded in syringe Pump.
- The test article is then injected in BLAM Nebulizer in controlled rate.
- Agar Plates/ Petridish are mounted on different stages of the Viable Impactor.
- The Test Specimen is clamed into the system for exposure.
- The BLAM Nozzle sprays fine Aerosol containing bacteria.
- The agar Plates are taken out for further analysis.

## SPECIFICATIONS:

System Component	Specifications
Viable Impactor	Anderson 6 Stage Cascade Impactor (TE-10-800)
Nebulizer	4 Jet BLAM Delivering 3.0 +/- 0.3 $\mu\text{m}$ aerosol and 2200 counts per test.
Aerosol Glass Column	Made of Prism Research Glass, 60 cm long and 8 cm in diameter
Syringe Pump	New Era (N-300) 0.00001- 42.8 ml/min Can deliver 0.01 ml/min
Calibrated Rotameters	SMC 0-100 psi (0-700 kPa)
Vacuum Pump	Rotary Vane Vacuum Pump (GAST 101Q) 2.7 CFM (76 l/min) at 20" HG Vacuum

