

## CERTIFICATIONS OBTAINED BY PHOEBE® TECHNOLOGY

### EUROFINS BIOLAB S.r.l

- Abatement analysis of Escherichia coli dispersed in aerosol inside a glovebox (Eurofins Number: STULV20AA0485-1)  
RESULT: 99% abatement
- Abatement analysis of CORONAVIRUS deposited on the filter inside a glovebox (Eurofins Number: STULV20AA1474-1)  
RESULT: ≥ 99,9% abatement

### BIOCHEMIE LAB S.r.l.

- Abatement analysis of VOC (volatile organic compounds) inside a glovebox  
To test the effectiveness of the device on the enormous variety of existing high volatility VOC (about 400 different substances), 5 molecules were chosen which are representative of their functional groups and their possible presence as indoor contaminants, in particular: an ester (ethyl acetate), an aldehyde (formaldehyde), a cyclic hydrocarbon (limonene), an aromatic hydrocarbon (toluene), an alcohol (isopropanol).  
RESULT: in all cases, there is the abatement of the tested VOC.
- Analysis of total microbial load reduction in an office of common use  
The analysis of total microbial load reduction (mesophilic bacterial load and total mycetic load) were carried out through a statistical analysis in a common office at Biochemie Lab S.r.l .. Average measurements over 5 working days were considered, in order to reflect the real situation of use as much as possible. At the end of the 5 days, the results obtained with and without the Phoebe system were compared.  
RESULT: With the activation of Phoebe system, there is the abatement of the presence of microorganisms.
- Ozone production analysis in an office of common use  
The possible production of ozone by Phoebe technology was monitored by monitoring its presence in a commonly used office over 5 days according to the OSHA-ID 214 method and subsequent determination performed in IC (ion chromatography).  
RESULT: As expected, by not using UV lights, the Phoebe system's lack of ozone production was confirmed.

## Internal laboratory Ce.Ri.Col. of Colorobbia

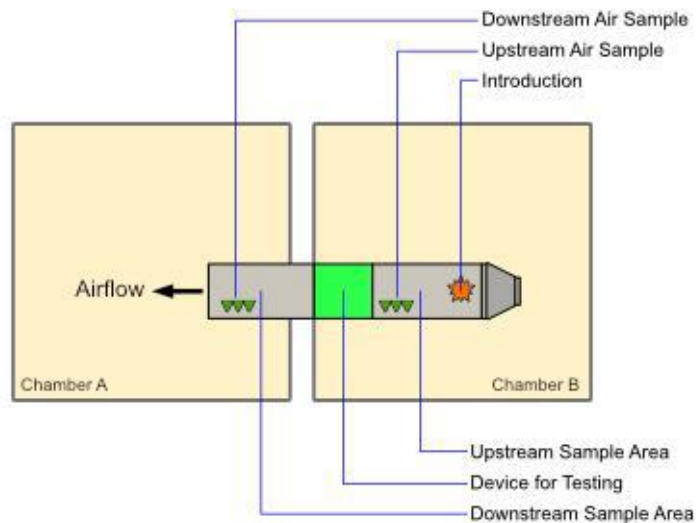
- Abatement analysis of NO (nitrogen monoxide) inside a glovebox  
RESULT: With the activation of Phoebe system, there is the total abatement of NO.

## AIRMID HEALTH GROUP LTD

- Abatement analysis of MS2 bacteriophage in a single passage  
In order to test the efficacy of the device on breaking down pathogens, in a single passage, in a air handling units, the Bacteriophage MS2 has been chosen. MS2 is one of the most resistant virus and therefore difficult to eliminate (much more resistant then SARS-CoV-2, cause of the pandemia Covid-19).  
The test was conducted in a reproduction of a air treatment duct, connected between two rooms, as in the picture below, at speed of 2,6 m/s. The virus has been aerosolized and introduced in the duct, then the presence of the virus has been sampled in the upstream and downstream of the duct, the last one after the passage through the Phobe device.  
From the difference between from the two values, it can be calculated the abatement.

### Single Pass Illustration

\*Not to scale



RESULT: MS2 virus was shot down for about 60% in a single passage at high speed. Considering the result in the control test of about 35%, it can be considered an abatement due to the device of 25% more, in a single passage at 2,6 m/s.

		run1	run2	run3	average	log10	dev stand
Control	upstream	1,98E+08	3,69E+08	8,89E+07	<b>2,19E+08</b>	8,34	1,41E+08
	downstream	1,31E+08	2,18E+08	7,51E+07	<b>1,41E+08</b>	8,15	7,20E+07
Test	upstream	5,31E+08	3,19E+08	4,06E+08	<b>4,19E+08</b>	8,62	1,07E+08
	downstream	1,97E+08	1,56E+08	1,51E+08	<b>1,68E+08</b>	8,23	2,52E+07
difference		6,70E+07	1,51E+08	1,38E+07	7,73E+07	0,19	6,92E+07
difference		3,34E+08	1,63E+08	2,55E+08	2,51E+08	0,40	8,56E+07

		run1	run2	run3	average
Control	upstream	-34%	-41%	-16%	<b>-35,3%</b>
	downstream				
Test	upstream	-63%	-51%	-63%	<b>-59,9%</b>
	downstream				