



University College Dublin conducted a study with Camfil that finds air purifiers have a four-fold increase in the removal of aerosols in poorly ventilated spaces



Stockholm, Sweden, 05th July 2021 - **A study conducted by University College Dublin (UCD) and the Mater Hospital in Dublin, using Camfil air filtration solutions find the effectiveness of air purifiers in cleaning unventilated spaces.** In a statement from the World Health Organisation around the spread of COVID-19 they state, "the virus can spread from an infected person mouth or nose in small liquid particles when they cough, sneeze, speak, sing or breathe. These particles range from larger respiratory droplets to smaller aerosols". To understand how HEPA air purification systems can help reduce the spread, the team at UCD performed tests of Camfil City M air purifiers in the indoor environment.

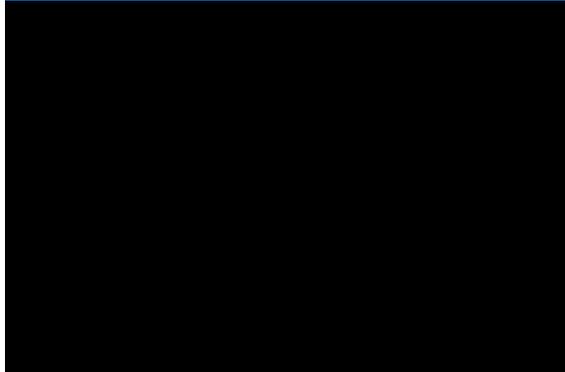
[A new study](#) by global air filtration provider, Camfil in conjunction with University College Dublin (UCD) and the Mater Misericordiae University Hospital (MMUH) has found that Camfil's City M air purifiers remove aerosols from poorly ventilated rooms at four times the normal rate. Experiments conducted by leading UCD researcher and lecturer, Dr. Kevin Nolan of the School of Mechanical and Materials Engineering, on the presence of aerosol in poorly ventilated spaces, used Camfil's City M air purifiers to rapidly clean a room of



aerosol. For this experiment, a room at the MMUH in Dublin measuring 4m x 2.5m x 2.6m was filled with aerosol for thirty seconds, with the use of a smoke wand. The presence of aerosol was measured by observing the average image intensity of laser light scattered by the aerosol. These experiments found that when untreated, aerosol slowly dissipated over 500 seconds. When the City M air purifier was at its maximum speed, the aerosol was cleared in under 160 seconds. When a small heater was used to provide added natural convection flow, the untreated aerosol particles dissipated in an alarming 800 seconds, which was reduced to below 200 seconds with the use of Camfil City M. The results of these experiments show that Camfil's City M air purifier can greatly reduce the presence of airborne particles compared to no treatment.

[These findings are significant](#) because on April 30th, 2021 the [WHO](#) declared that COVID-19 is transmitted mostly through the inhalation of airborne aerosols within close range. Camfil's air purifiers can reduce the spread of COVID-19, while also tackling more long-standing health problems. Air pollution is the [single greatest environmental health risk in Europe](#). The [WHO](#) estimates that 400,000 deaths in Europe and 1,080 in Ireland every year are attributable to poor air quality. The [International Agency for Research on Cancer](#) has classified air pollution - particularly PM2.5 - as a leading cause of cancer. High-Efficiency Particulate Air filtration (HEPA) technologies are capable of greatly reducing the circulation of airborne particulate matter by over 99 percent.

#### [Removal of aerosols from poorly ventilated areas](#)



#### [HEPA air purifiers in poorly ventilated areas](#)





“Since 1963 Camfil has been committed to educating the public about the importance of clean air, and to providing top quality solutions to protect people, processes and the environment. The past year and a half have made our mission and purpose more important than ever before, as the idea of clean air has become a top priority for people. While COVID-19 is likely to be a temporary disaster, air pollution has become a permanent fixture for people all over the world. While removing the harmful pollutants is not an easy task, protecting our environment is; we are determined to show people that installing HEPA filters into buildings can and will decrease the risk of inhaling harmful pollutants. This fantastic study by UCD is proof of the success of Camfil’s filters” - Paul Flanagan, Managing Director of Camfil Ireland

“We are very grateful to Camfil for allowing us to use their City M air purifiers for these experiments. Since the outbreak of COVID-19, it has become more and more important to test new methods of keeping our indoor spaces clean and free from airborne particles. Camfil’s City M air purifiers have proven to be highly effective in removing the presence of aerosols quickly and efficiently, creating a healthier and safer environment. Conducting these experiments at the Mater Misericordiae Hospital in Dublin has allowed us to display how hospitals can benefit from the use of top-quality air purifiers to protect patients and staff” - Dr. Kevin Nolan of the School of Mechanical and Materials Engineering at UCD

### **About Camfil**

For more than half a century, Camfil has been helping people breathe cleaner air. As a leading manufacturer of premium clean air solutions, we provide commercial and industrial systems for air filtration and air pollution control that improve worker and equipment productivity, minimize energy use, and benefit human health and the environment. We firmly believe that the best solutions for our customers are the best solutions for our planet, too. That’s why every step of the way – from design to delivery and across the product life cycle – we consider the impact of what we do on people and on the world around us. Through a fresh approach to problem-solving, innovative design, precise process control, and a strong customer focus we aim to conserve more, use less, and find better ways – so we can all breathe easier. The Camfil Group is headquartered in Stockholm, Sweden, and has 33 manufacturing sites, six R&D centres, local sales offices in 30 countries, and 4,800 employees and growing. We proudly serve and support customers in a wide variety of industries and in communities across the world. To discover how Camfil can help you to protect people, processes, and the environment, visit us at [www.camfil.com](http://www.camfil.com)