TRANE

*It's Hard To Stop A Trane.*

# New Study Results Show Breakthrough Technology Removes Common Flu Virus From a Home's Filtered Air

*Study Reveals Trane CleanEffects™ Removes More Than 99 Percent of the Influenza A Virus*

During flu season and throughout the year, families are exposed to viruses that circulate in the air they breathe indoors, so taking measures to prevent illness makes sense. Getting a flu shot, eliminating germs on surfaces through cleaning, and washing hands often are important steps to avoid getting the flu.

Yet, many people are still susceptible to the virus in the air in their home. The main way influenza viruses are spread is from person-to-person in respiratory droplets of coughs or sneezes[1]. Now, first-of-its-kind research conducted by researchers at the Harvard School of Public Health, in collaboration with scientists at Environmental Health and Engineering Inc., (EH&E) shows that Trane CleanEffects™, a whole-house air filtration system, removes more than 99 percent of the common flu, or influenza A virus from the filtered air.

Because of the similarities among types of influenza viruses, Harvard and EH&E researchers concluded that Trane CleanEffects™ will remove more than 99 percent of other forms of the virus, including influenza B, influenza C and avian influenza (also a strain of influenza A virus) from the filtered air.

The tests involved releasing the common flu virus into the air inside a test heating, ventilation and air conditioning duct. The removal efficiency was calculated from the amount of the common flu virus measured in air samples collected before and after passing through the Trane CleanEffects™ system.

"By removing the vast majority of the common flu virus from a home's re-circulated air, the average airborne concentration of the virus in the home is reduced, thereby lowering airborne exposure to the virus for household occupants," said Dr. David MacIntosh, instructor at the Harvard Extension School, and principal scientist at EH&E.

Trane has received Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) registration from the Environmental Protection Agency (EPA). Trane is the clear industry leader in EPA compliance for FIFRA as the first whole-house air cleaner to obtain a FIFRA registration number. "In a home with central forced air and a conventional 1-inch filter, the average virus particle would re-circulate through the home about seven times before depositing on a surface or being transported outdoors. That's more than enough time to breathe in the virus, and cleaning the air in your home is an important step to improve the health of your home environment," said MacIntosh.

"People with allergies and asthma are potentially at a greater risk of catching the airborne flu virus. Additionally, patients with asthma may have a more severe course of the flu because of their underlying airway damage. For this reason, we recommend that anyone with asthma take all measures to prevent acquiring the flu. These test results are very important because they demonstrate that installing a whole-house air cleaner, such as Trane CleanEffects™ , can add another layer of protection against the flu for patients with allergies and asthma," said Dr. Paula Busse, M.D., allergy and immunology specialist, Mount Sinai Medical Center.

Trane CleanEffects™ utilizes patented breakthrough air cleaning technology to eliminate allergens and particles you don't want in your home, such as dust, pollen, bacteria, pet dander, mold spores, smoke and now the common flu virus. It even removes particles as small as .1 microns – 1/1,000th the diameter of a human hair – the size that eludes most air cleaners. To put this in perspective when it comes to the common flu, a single influenza virus is around .1 micron in diameter. Trane CleanEffects™ is 100 times more effective than the standard 1-inch filter found in most home central systems, removing up to 99.98 percent of airborne particles and more than 99 percent of the common flu virus from the filtered air.