



### WHY INDOOR AIR QUALITY?

Consumers are now spending more time in their homes than ever before, and they know that their indoor air quality isn't just about temperature. Before, indoor air quality was an afterthought, but in our "new normal," it is important for consumers to be informed on the products available to them. Trane offers a complete portfolio of indoor air quality products for whole home solutions for new and existing units.

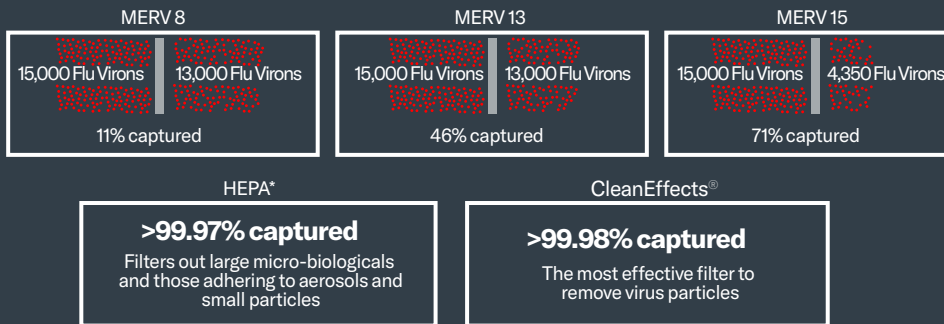
### WHY CLEANEFFECTS®?

Particles like dust and bacteria are often .3 microns or less. At that size, particles can get deep into your lungs because they aren't filtered well by your nose and throat. An effective air cleaner, such as CleanEffects®, can reduce the presence of potential asthma and allergy attack triggers in the home, like dust, pollen, pet hair and dander, dust mites, mildew, smoke, mold spores, fungus, bacteria, and even removes 99.9% Influenza A (H1N1) virus<sup>^</sup>.



Trane CleanEffects® has even been performance-tested by LMS Technologies and Environmental Health & Engineering, Inc. (EH&E), with the results verified by professors from the Harvard School of Public Health, so customers know they are getting an air cleaner like no other.

<sup>^</sup>As reported by airmid healthgroup in ASCR092142v2 (2015)



**Reducing the total number of available airborne viruses in a space can help impact the spread of disease.** Higher efficiency filters can capture and remove a significant amount of airborne infectious particles and can be utilized as an option to reduce total volume of aerosol microbiologicals within the home.<sup>^</sup>

## BUT HOW DOES INDOOR AIR QUALITY WORK?



### CONTAIN

Control indoor temperatures and humidity. Installed humidity sensors and updated control sequences help to maintain indoor air temperatures at 68–78° F and humidity between 40% - 60% RH.



### DILUTE AND EXHAUST

Fresh outdoor air dilutes the buildup of indoor contaminants through proper ventilation.



### CLEAN

Reduces amount of micro-organisms, such as viruses, mold, and bacteria.

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<sup>^</sup>Source: Modeling Immune Building Systems for Bio-terrorism Defense: Kowalski, Bahnfleth, Mosser. Journal of Architectural Engineering. June 2003 v9(2), pp222-227

\*HEPA was not a part of the study above. It is a graphical representation of 99.97% efficiency HEPA filter (defined by DOE) with particles in 0.3µm which is the toughest size to catch.



## CONTAIN

Trane total home humidifiers and dehumidifiers add an important element of comfort to the indoor environment. The customer's air may be at the right temperature but with humidifiers, dehumidifiers, and positive pressure air handlers, the customer's home can be at the **right temperature, humidity, and comfort.**

 <p><b>DEHUMIDIFIERS</b></p> <p>Having the optimum amount of humidity in your indoor air can impact your health. Either too much or too little can lead to the rise of unhealthy airborne particulates.</p>	 <p><b>HUMIDIFIERS</b></p> <p>Choose Precise Relative Humidity Percentage Settings based on needs and outdoor conditions.</p>	 <p><b>HYPERION™ AIR HANDLER</b></p> <p>The extraordinary Trane Hyperion™ air handler represents a substantial advance in air handling technology. Double-walled cabinet that is fiberglass-free and exclusive Trane Vortica™ blower ensure reliable, ultra-quiet operation.</p>
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## DILUTE AND EXHAUST

Trane offers a whole-house solution for fresh air ventilation. Trane ventilators exhaust stale indoor air and bring in fresh, preconditioned, outdoor air, so the customer's home can be a cleaner, healthier, and a more enjoyable place to live.

 <p><b>VENTILATORS</b></p> <p>Ventilators are an important component to bring in fresh air to the home. ASHRAE® recommends increasing ventilation to address the total volume of viruses by diluting the air.</p>	 <p><b>ENERGY RECOVERY VENTILATOR (ERV)</b></p> <p>Ventilators with ERV's are an energy efficient method of bringing fresh air into the home. An ERV helps eliminate moisture that is carried in by fresh air so the indoor unit doesn't need to work so hard - saving the homeowner money.</p>
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## CLEAN

Today's homes are built to be more energy efficient than ever. The EPA says indoor air can be 5x as polluted as the outdoor air.<sup>4</sup> Trane IAQ solutions help consumers keep their air free from potentially harmful contaminants and protects their equipment investment by keeping motors and coils clean from energy robbing dust and particulates.

 <p><b>TRANE CLEANEFFECTS®</b></p> <p>Trane CleanEffects® utilizes patented technology to deliver cleaner air to the whole home by removing up to 99.98% of airborne particles<sup>1</sup> that pass through the re-usable filter, making it up to 100X more effective than a standard 1" filter<sup>2</sup>. And it is the <b>ONLY</b> whole-home electronic air cleaner that is certified <b>asthma &amp; allergy friendly</b><sup>3</sup> by the Asthma &amp; Allergy Foundation of America.*</p> <ul style="list-style-type: none"> <li>✓ Removes up to an incredible 99.98%* of allergens and flu viruses from filtered air</li> <li>✓ Removes 99.9% Influenza A (H1N1) virus<sup>3</sup></li> <li>✓ Removes 99.98% of airborne particles (Bacteria, Dander, Dust, Mold Spores, Pollen, Smoke)</li> <li>✓ NO replacement filters needed</li> <li>✓ Performance verified by leading third party experts in the field of environmental &amp; health sciences</li> </ul>	 <p><b>QUIKBOX™ MEDIA FILTERS</b></p> <p>QuikBox - Insulated 5" Filter Cabinet in 9 sizes with MERV 11 Filters.</p>  <p><b>MEDIA FILTERS</b></p> <p>SlimFit - Affordable 1" Filter Solutions for TEM Air Handler and S9V2 Furnace.</p>  <p><b>UV LIGHT</b></p> <p>Reduction of smoke, odors, VOCs, allergens, dust, &amp; particulates. Unlimited cycling capability with self cleaning ionizers with carbon fiber brushes. Available through your Parts Store.</p>
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\*2015 tests performed by an independent 3rd party demonstrated that CleanEffects® removed 99.9% of Influenza A virus from an inside space and duct in a 30 min period.\*

<sup>1</sup> Based on 3rd party testing of particle removal efficiency down to 0.3 microns (2005)

<sup>2</sup> Assuming <1% removal rate of 0.3 – 10 micron particles

<sup>3</sup> As reported by airmid healthgroup in ASCR092142v2 (2015)

<sup>4</sup> U.S. Environmental Protection Agency, 1987. The total exposure assessment methodology (TEAM) study: Summary and analysis. EPA/600/6-87/002a. Washington, DC.