

## EVIA Ventilation Performance Assessment Tool

**Brussels, 9 February 2022:** On February 2, 2023, EVIA launched the Ventilation Performance Assessment Tool (VPAT) for residential ventilation systems during a physical meeting in Brussels – exclusively for its members.

The COVID-19 pandemic and the current energy crisis, show the importance of ventilation systems; mainly the good indoor air quality (IAQ) they provide and their energy consumption. Also, IAQ is now even more relevant as the building stock is (slowly) converted to airtight and zero energy consuming buildings. Unfortunately, the benefits of ventilation systems are still a neglected and underestimated topic.

It is generally assumed that compliance with building codes results in an acceptable IAQ and that the various types of code-compliant ventilation systems perform comparably. However, field research demonstrates that both assumptions are incorrect. Indeed, IAQ levels can be far from adequate and large differences in ventilation performance between systems and dwellings exist.

Therefore, a number of EVIA-members decided to develop a ventilation performance assessment tool (VPA-Tool) to compare the various ventilation systems and create an “Indoor Air Performance label”.

Instead of using standardised usage tests for assessing a product’s performance, EVIA chose to base the ranking on EU standards. This way, the ranking results relate to an EU-wide acknowledged benchmark for ventilation performance. The resulting label is meant to inform the end consumer on the ventilation performance, mentioned next to the Ecodesign label, which focuses on the energy performance of the system.

To promote and disseminate ventilation performance as the key feature of residential ventilation systems, an assessment method for determining the actual ventilation performance of Residential Ventilation Units was required. Thus, to ensure a solid scientific base for the calculations, different EVIA-taskforces together with the consultant VHK and the University of Ghent developed the VPA-tool.

After several years of work, the VPA-tool now determines to which extent the ventilation system can remove and/or dilute pollutant concentrations in various rooms, both during absence and mainly during presence when exposure occurs. We can define Ventilation Performance here as *“the ability of a ventilation system to exchange the right amount of air in the right place at the right time”*. In practice, an excel document allows manufacturers to preselect system components that identify their MEV(UVU) or MVHR-units(BVU) and the AEP result then allows them to position their ventilation systems.

The resulting tool can be used in two ways :

1. to assesses the ventilation performance within a common EU-framework and produce an “Indoor Air Performance label” that allows a comparison with other ventilation systems
2. as a R&D-tool to develop new ventilation concepts

During this physical workshop, EVIA-members had the opportunity to learn about the methodology, the excels and get some hands-on training with members of the Technical Taskforce.

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**About EVIA**

*The European Ventilation Industry Association (EVIA) was established in Brussels in July 2010 to represent the views and interests of the ventilation industry and promote energy efficient ventilation applications as well as an adequate indoor air quality in buildings. EVIA has 48 member companies and 6 national associations across Europe, representing an annual turnover of over 7 billion Euros and employing more than 45,000 people in Europe.*

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