

Equivalent Area (mm2) to Airflow (l/s)

Conversion Calculator

Converting Equivalent Area (EA) in mm² to airflow in l/s is not a direct conversion because airflow depends on the air’s velocity, not just the area of the vent. EA measures the effective size of a vent, whereas airflow measures the volume of air passing through it per second. The relationship is governed by the formula: Airflow (l/s) = (EA × Velocity) / 1000.

You can use the tool below to help you to work out what you need.

This tool is designed to simplify the process of determining the appropriate airflow requirements for your ventilation system. By converting airflow measurements into equivalent areas, you can ensure optimal performance and compliance with building regulations. Whether you’re addressing condensation issues or enhancing indoor air quality, this calculator is an essential resource for effective ventilation design.

Please note that the results provided by this calculator are intended for informational purposes only. While we strive to ensure accuracy, we recommend consulting with a qualified ventilation professional to confirm your specific requirements and ensure compliance with all relevant regulations and standards. VENTI Group Ltd is not responsible for any discrepancies or issues arising from the use of this calculator.

What are the common ARIA and FLUXO Equivalent Areas?

(Based on a velocity of 1 m/s)

Model	Airflow (L/s)	Equivalent Area (mm ²)
ARIA 100	7.5 - 23.05	7,500 - 23,050
ARIA 150	5.0 - 50.00	5,000 - 50,000
FLUXO 100	3 / 4 / 8	3,000 / 4,000 / 8,000
FLUXO 150	6 / 11 / 17	6,000 / 11,000 / 17,000
AUREN 160	3/ 6 / 11 / 17	3,000 / 6,000 / 11,000 / 17,000

FLUXO shown as Speed 1, 2, and 3. AUREN shown as Night Speed, Speed 1, 2, and 3.

What is airflow and why is it important?

Airflow refers to the movement of air within a space, which is crucial for maintaining indoor air quality and comfort. Proper airflow helps to remove pollutants, control humidity, and ensure a pleasant environment.

How do I use the airflow calculator?

To use the calculator, simply input the airflow measurements in litres per second (L/s) or the equivalent area in square millimetres (mm²). The calculator will then provide the corresponding values, allowing you to assess your ventilation needs.

What are the benefits of using equivalent areas in ventilation design?

Using equivalent areas simplifies the design process by providing a clear understanding of how different airflow rates translate into specific ventilation requirements, ensuring compliance with regulations and optimising system performance.

What factors can affect airflow requirements?

Several factors can influence airflow needs, including room size, occupancy levels, the activities taking place, and the presence of any equipment that may generate heat or pollutants.

How do I determine the appropriate ventilation model for my needs?

Selecting the right model (ARIA or FLUXO) depends on your specific requirements, such as the size of the space, the intended use, and the desired airflow rates. Consulting product specifications can help guide your decision.

What are the common mistakes to avoid when calculating airflow?

Common mistakes include miscalculating room dimensions, overlooking the impact of furniture or obstructions, and not accounting for variations in occupancy. Double-checking your inputs can help prevent errors.

Can I rely solely on this calculator for my ventilation needs?

While this calculator is a valuable tool, it is essential to consult with a qualified ventilation professional to ensure that your specific requirements are met and that you comply with all relevant regulations.

What regulations should I be aware of when designing a ventilation system?

Familiarise yourself with local building codes and standards related to ventilation, which may specify minimum airflow rates, system efficiency, and installation practices to ensure safety and comfort.

How often should I check or maintain my ventilation system?

Regular maintenance is recommended at least once a year, with checks for filter cleanliness, duct integrity, and overall system performance to ensure optimal operation.

Where can I find more information about indoor air quality?

For further information on improving indoor air quality, consider exploring resources from reputable organisations, government guidelines, or articles focused on ventilation and air quality management.