[What is a Fresh Air Intake (FAI)?](#)

A Fresh Air Intake (FAI) is a passive vent or opening designed to allow outdoor air to enter an enclosed space, ensuring adequate ventilation and maintaining indoor air quality. It is a critical component in modern building design, particularly in the context of energy efficiency and compliance with UK Building Regulations.

In the UK, the importance of FAIs is underscored by **Approved Document F (Ventilation)** of the Building Regulations, which mandates adequate ventilation in residential buildings to prevent the buildup of pollutants, moisture, and stale air. FAIs are often integrated into mechanical ventilation systems, such as Mechanical Ventilation with Heat Recovery (MVHR) systems, or used in conjunction with natural ventilation strategies.

For example, in a retrofitted Victorian terrace house, an FAI might be installed near the roof eaves to supply fresh air to an MVHR system, ensuring that the system operates efficiently while maintaining indoor air quality. In new builds, FAIs are often incorporated into the design of windows, walls, or dedicated ventilation ducts to meet Part F requirements.

Synonyms:

- Air inlet
- Ventilation intake
- Outdoor air vent

Related Terms:

1. **Mechanical Ventilation with Heat Recovery (MVHR):** A system that extracts stale air from a building while supplying fresh air, recovering heat from the outgoing air to improve energy efficiency.
2. **Approved Document F (Ventilation):** The UK Building Regulation document that outlines the requirements for ventilation in residential buildings.
3. **Air Changes per Hour (ACH):** A measure of how many times the air within a space is replaced with fresh air in one hour, often used to assess ventilation effectiveness.
4. **Passive House Standard:** A rigorous energy efficiency standard that often incorporates FAIs as part of its ventilation strategy.
5. **Indoor Air Quality (IAQ):** The quality of air within and around buildings, particularly as it relates to the health and comfort of occupants.