What is a Gravity Grille?

A gravity grille is a passive external vent cover designed with hinged louvres that fall closed when not in use to minimise backdrafts and are blown open by the escaping air when the extractor fan is in operation. It is commonly used in UK residential buildings to ensure effective ventilation while maintaining energy efficiency and preventing unwanted air infiltration.

Gravity grilles are widely employed in the UK house building, residential retrofit, and home renovation sectors. They are particularly useful in kitchens, bathrooms, and utility rooms where mechanical extract ventilation (MEV) or continuous mechanical extract ventilation (CMEV) systems are installed. These grilles comply with Part F (Ventilation) of the UK Building Regulations, which mandates adequate ventilation to maintain indoor air quality and prevent condensation and mould growth.

Synonyms:

- Passive vent grille
- Hinged louvre vent

Related Terms:

1. **Mechanical Extract Ventilation (MEV):** A system that extracts stale air from wet rooms (e.g., kitchens, bathrooms) via ducting and vents it outside.
2. **Continuous Mechanical Extract Ventilation (CMEV):** A low-energy MEV system that operates continuously to maintain air quality.
3. **Air Permeability:** The measure of how much air leaks through a building's envelope, which gravity grilles help minimise.
4. **Part F (Ventilation) of the Building Regulations:** UK regulations that set standards for ventilation in residential buildings.
5. **Backdraft Damper:** A device that prevents reverse airflow, often integrated into gravity grilles.
6. **Condensation Control:** Strategies to reduce moisture buildup, where gravity grilles play a role by ensuring proper ventilation.
7. **Passive House Standards:** A rigorous energy efficiency standard that often incorporates gravity grilles for optimal ventilation.

Practical Example:
In a typical UK home renovation project, a gravity grille might be installed on an external wall connected to a kitchen extractor fan. When the fan is off, the grille's louvres remain closed, preventing cold air from entering the home. When the fan is activated, the force of the escaping air pushes the louvres open, allowing stale air to exit efficiently.