

What is an Extractor Fan?

An extractor fan is a mechanical ventilation device designed to remove stale, moist, or polluted air from an enclosed space (e.g., kitchens, bathrooms, utility rooms) to the outside. It is a critical component in maintaining indoor air quality (IAQ) and preventing condensation, mould growth, and pollutant buildup.

Types of Extractor Fans

1. **Intermittent Extract Fans** - Operate only when needed (e.g., during cooking or showering).
2. **Continuous Extract Fans** - Run constantly at a low rate, with boost functionality when required.

Key Requirements (UK Building Regulations, Approved Document F 2021)

Extractor fans must comply with **Part F (Ventilation)** of the Building Regulations. Key provisions include:

Room Type	Intermittent Extract Rate (l/s)	Continuous Extract Rate (l/s)
Kitchen (with cooker hood extracting externally)	30	13 (high rate)
Kitchen (no cooker hood or recirculating hood)	60	13 (high rate)
Utility Room	30	8 (high rate)
Bathroom	15	8 (high rate)
Sanitary Accommodation (WC)	6 (or purge ventilation)	6

(Source: Approved Document F, Volume 1: Dwellings, Tables 1.1 & 1.2, 2021 edition)

Installation & Compliance

- **Location:** Must be installed as high as practicable (max. 400mm below ceiling).
- **Controls:** Manual (user-operated) or automatic (humidity/pollutant sensors).
- **Noise Limits:** ≤30 dB(A) in bedrooms, ≤45 dB(A) in kitchens/bathrooms.
- **Ducting:** Rigid ducts preferred; flexible ducts limited to 1.5m for final connections.

Related Terms

1. **Mechanical Ventilation with Heat Recovery (MVHR)** - Extracts stale air while recovering heat to warm incoming fresh air.
2. **Background Ventilators** - Passive vents (e.g., trickle vents) providing whole-dwelling airflow.
3. **Purge Ventilation** - Rapid air exchange via windows (min. 1/20th floor area for hinged windows).
4. **Air Permeability** - Measure of airtightness (≤3 m³/(h·m²) @50Pa for highly airtight dwellings).
5. **Part L (Conservation of Fuel and Power)** - Overlaps with ventilation efficiency requirements.