



GREASE (Kitchen Extract)

Future of the Kitchen Grease Extract

Future Changes

Because of environmental challenges, the economy, Government directives and legal requirements there will be some changes, including:

- **Reducing the use of gas operated equipment.** Eventually this will be completely banned.
- **Banning gas hobs.** The Government wants this to be done **within six years.**

Changes to cooking procedures will mean less grease -> less duct cleaning -> reduces the risk of fire.

Future Technology

- **Hood Sensors.** They automatically detect a maximum set temperature and reduce it to **avoid a flash fire.**
- **Filtration Equipment Sensors.** They determine the condition of the filters and the housing. Sometimes, they can automatically shut down the fan and catering equipment where the **cleaning frequencies are breached.** They can also be connected to the internet to communicate data and **automatically schedule maintenance and cleaning.**

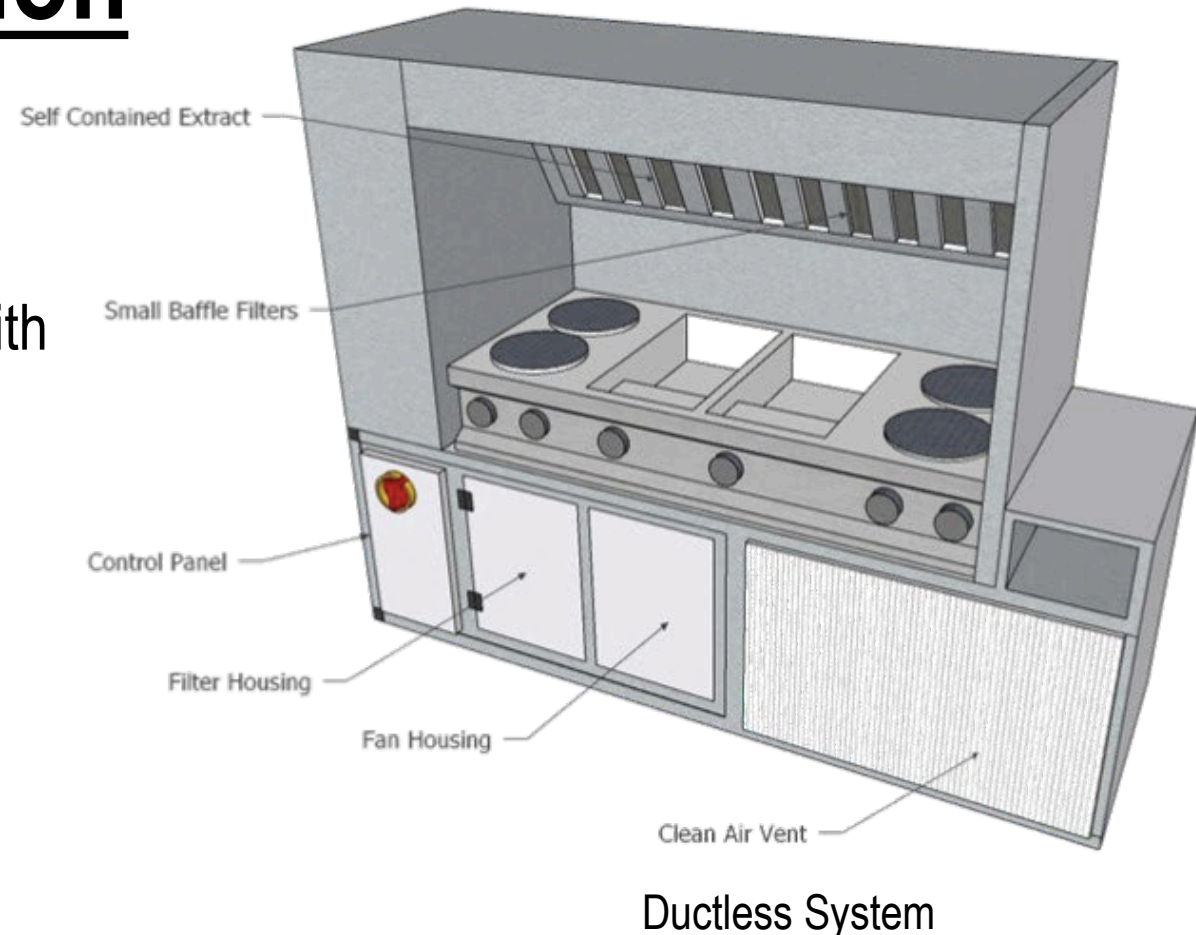
Ductless Kitchen Extraction

Ductless kitchen extract systems are becoming more popular.

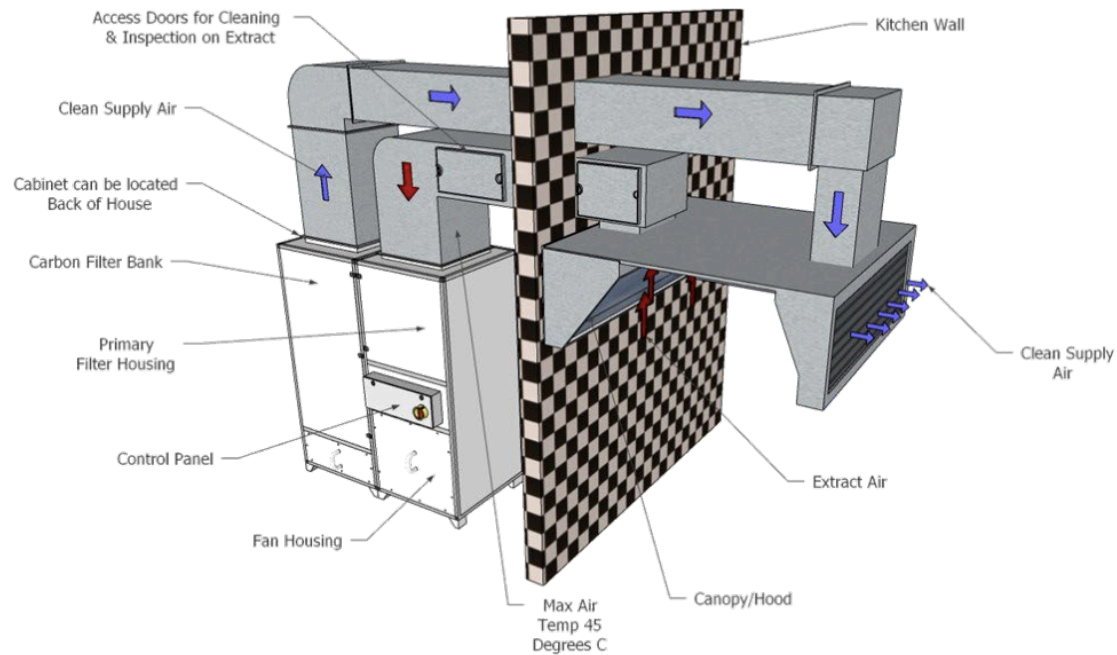
Units in the marketplace improve filtration in kitchens with no external ventilation.

Most units are suitable for electric equipment, which counters any gas regulations.

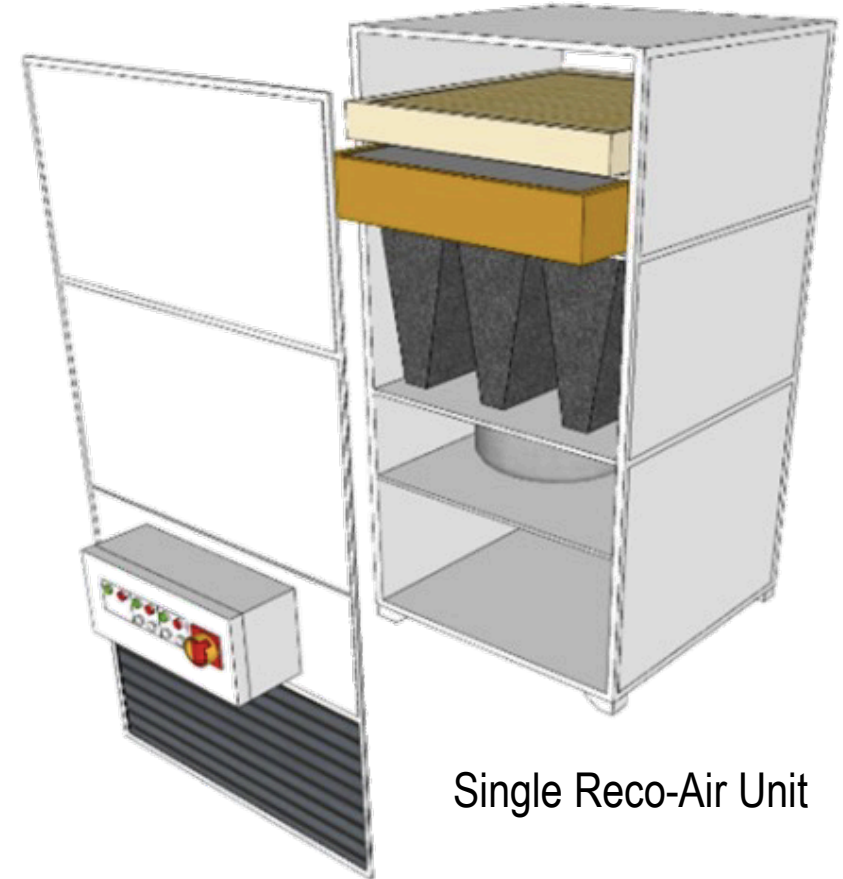
Manufacturers say that ductless ventilation hoods and recirculation units can be used where it's difficult to get planning permission.



Free-Standing Self-Contained Recirculation Units



Double Full Reco-Air Self-Contained Unit

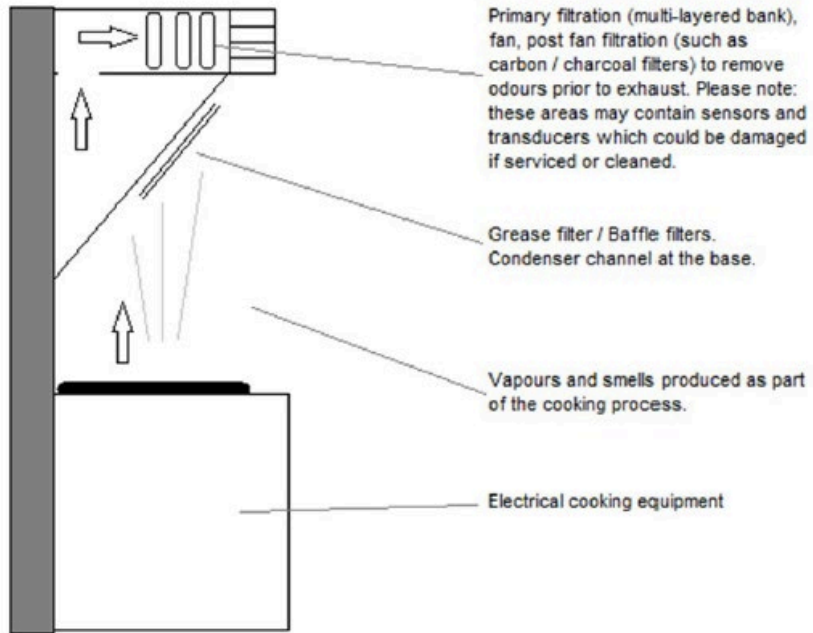


Single Reco-Air Unit



A separate recirculation unit. The model shown is manufactured by Reco-Air.

Benefits

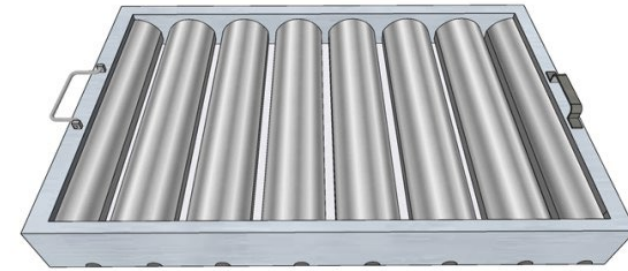


An integrated recirculation system

- Allows for the creation of a new cooking area
- Some solutions can be retro fitted, such as cooling coils
- The multiple stage filtration process removes grease, smells and smoke
- Reduces the amount of pollutants / contaminants released in the atmosphere
- The self-contained recirculation unit increases the capacity in kitchens
- Some configurations can be fitted with fire suppression equipment

Considerations

- Many units do not control air temperature
- Most units do not remove carbon dioxide / products of combustion from recycled air, so they should be used with electrical catering equipment
- Needs variable fan speeds to maintain a constant rate of extraction
- Many manufacturers recommend air changes through background extraction / ventilation
- Most filters (other than the baffle filters) will need replacing. This can be checked either visually or through sensor technology.
- System configurations may vary



Baffle Filters

Recommended places of installation:

- Airports
- Listed buildings
- As an alternative to locating ductwork through a fire break – to reduce fire risk
- Railway stations
- Basement kitchens
- Areas where planning consent has been restricted
- Any commercial kitchen requiring increased production without too much modification

Caution

- Some manufacturers include a **warranty period** which could be invalidated if filter media, housing interiors and sensors are **damaged during cleaning**.
- Multi layered filtration may contain **pressure tube sensors** which could be **damaged during cleaning**.
- Layers of filtration which include G4, M6 or HEPA filters will protect the fan from accumulates, **stopping the need for cleaning**.
- These systems have a further layer of filtration after the fan made of food grade carbon / activated charcoal media. This **removes smells prior to exhaust** / returning air to the workspace.