

EKR 31

Exhaust air system for the ventilation of commercial kitchens

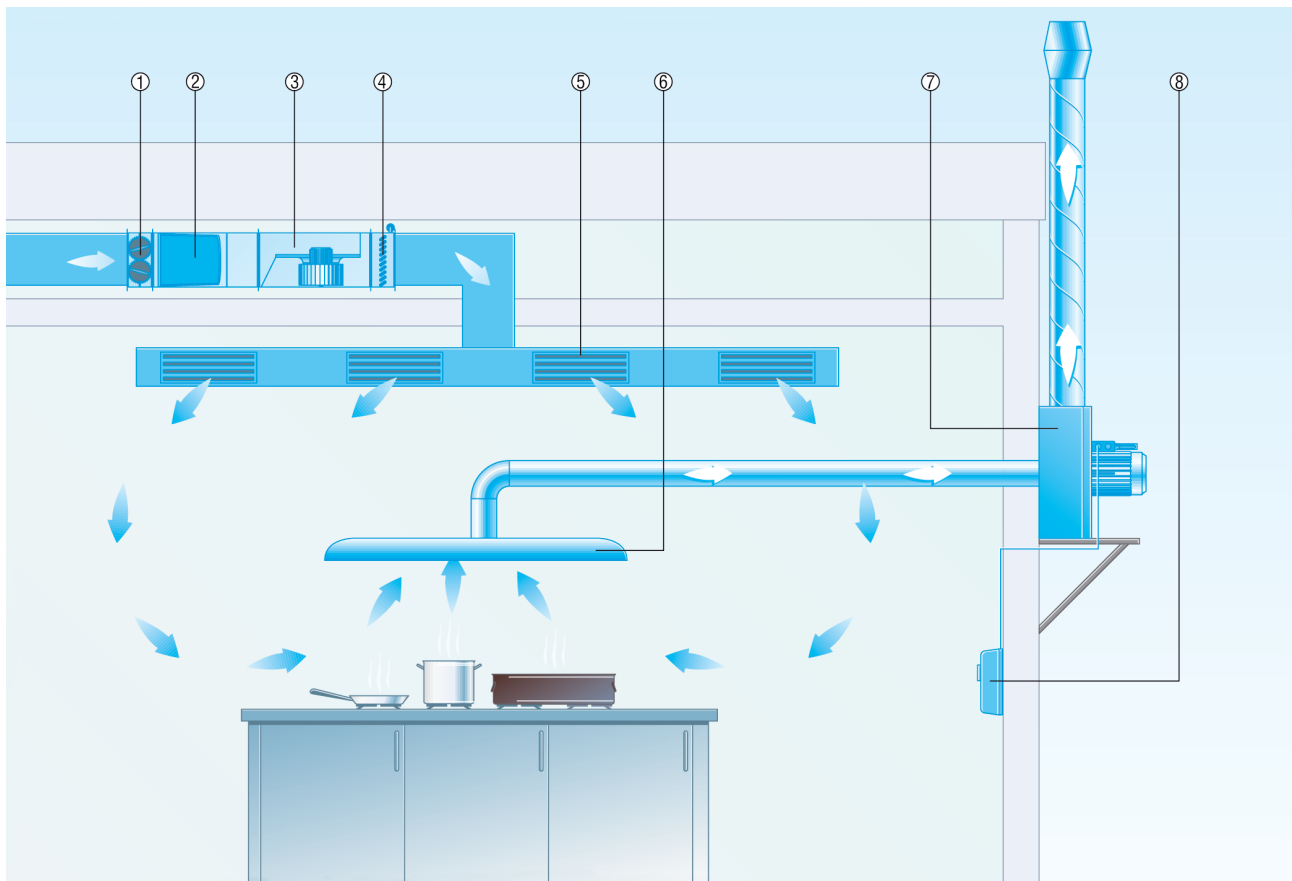
Hygiene and health and safety at work are all closely associated with the correct operation of cooker extraction equipment. Range hoods that are installed in commercial kitchens can get clogged with grease very quickly if they are not maintained correctly. The deposits that are formed on hoods, filters, exhaust air ducts and fans constitute a fire hazard.

Hoods, filters and exhaust air ducts can be cleaned relatively easily. Cleaning very dirty air extraction fans, especially the impellers can be very difficult. In most cases, the only solution is to replace with new equipment.

For just such problem areas, MAICO offers robust air extraction fans for use in kitchens. These units are specifically designed for operation with hot and contaminated exhaust air.

In the example shown, supply air is brought into the commercial kitchen using a supply air system consisting of DPK duct fans, TRP air filters and WHP air heaters.

An exhaust air system around the EKR or EKR FU ventilation box extracts the air through the cooker range hood and transports it to the outside.



- ① AKP Channel shutter
- ② TFP Air filter
- ③ DPK Duct fan for supply air
- ④ WHP Water air heater
- ⑤ LGA, LGZ internal grilles
- ⑥ Range hood
- ⑦ EKR or EKR FU exhaust air box
- ⑧ Controller

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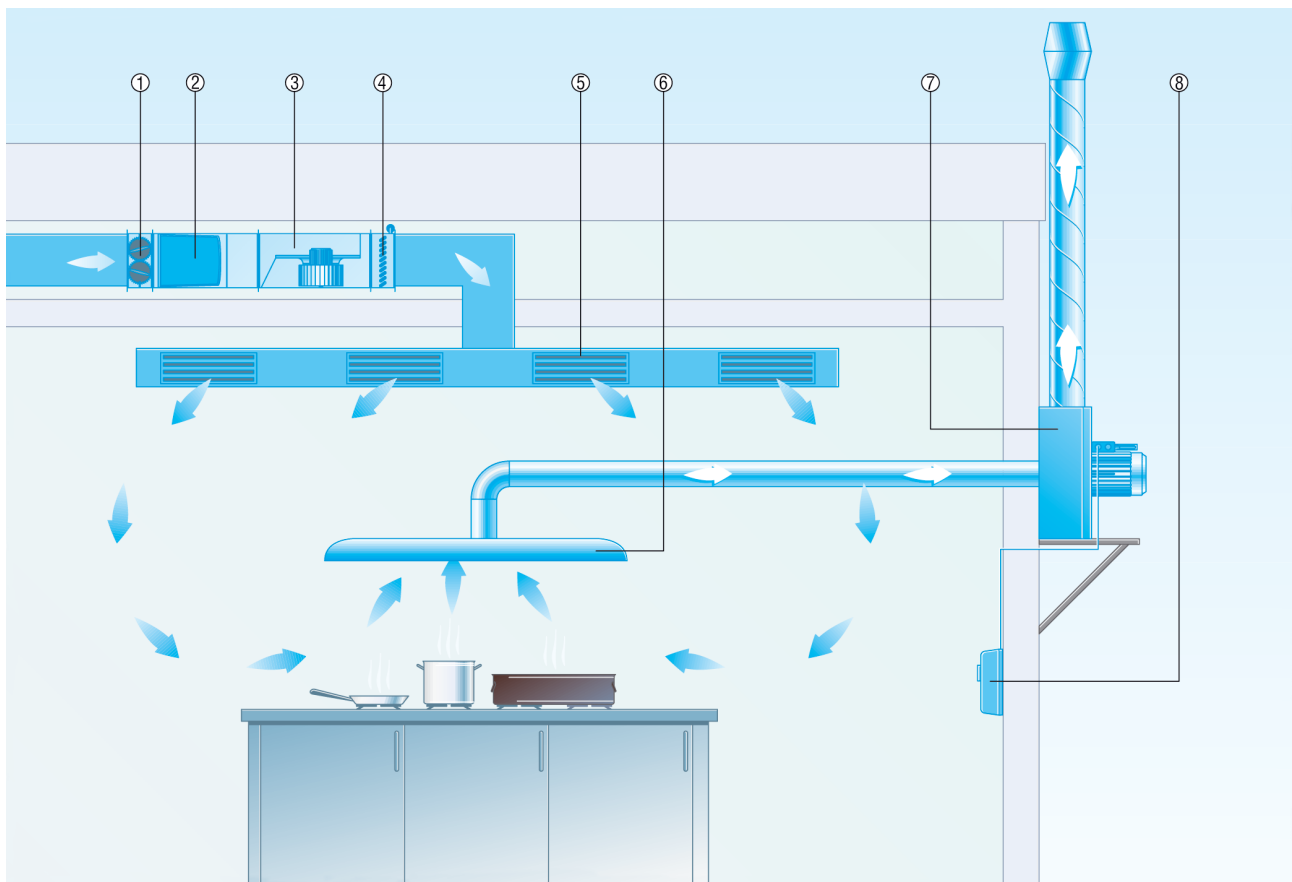
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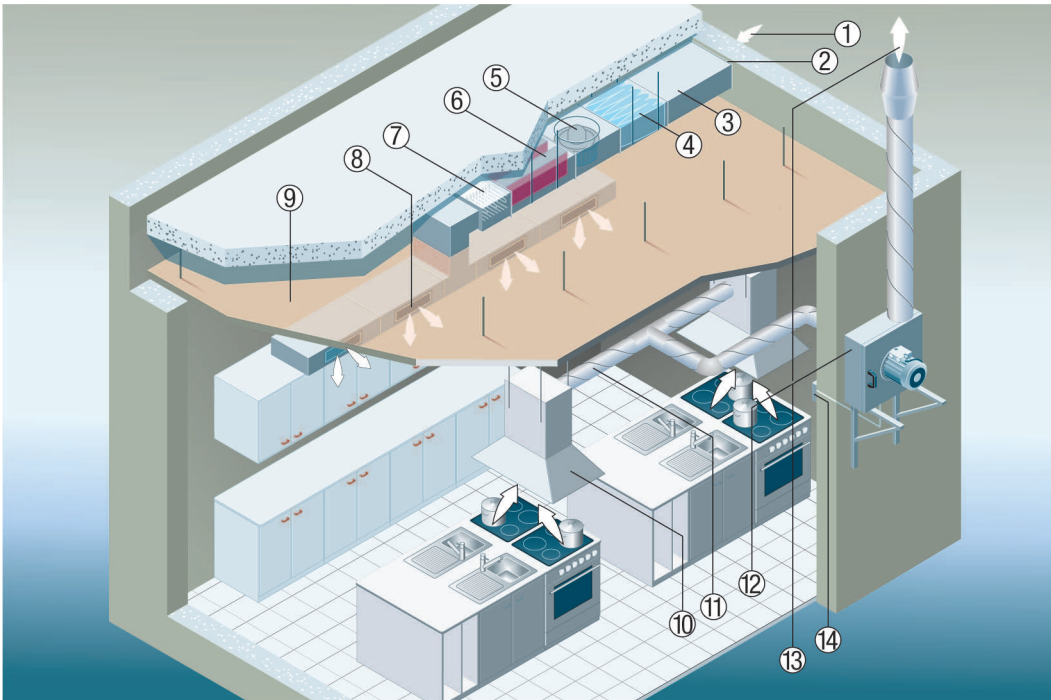
Ventilation and air extraction of large kitchen using channel fan and kitchen exhaust air box

- A channel fan is suited to all locations offering little space for the ventilation system. Their low mounting height means that they fit easily in suspended ceilings. This allows the ventilation ducts to be fitted with ease.
- And the kitchen exhaust air box is the right choice of fan for places where hot and greasy air needs extracting from large kitchens in commerce or schools. The external motor, which is not therefore in the air flow, is not sensitive to hot, greasy or contaminated air flows.

INSTALLATION INSTRUCTIONS

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- In the example shown, a sound-insulated channel fan is supplying a kitchen with supply air.
- Air filter, sound absorber and electric air heater round off the supply air pipe. The supply air is blown in close to the ceiling and spread throughout the room.
- The exhaust air is extracted by range hoods above the cooking areas. The air inlets and outlets are spread such that the room receives optimum cross-ventilation. The kitchen exhaust air box then removes the outgoing air outdoors via a duct system. The volume of air extracted by the kitchen exhaust air box can be set using a control unit as necessary.



- ① Outside air
- ② External grille
- ③ Supply air channel system
- ④ Air filter
- ⑤ Channel fan
- ⑥ Channel sound absorber
- ⑦ Electric air heater
- ⑧ Supply air opening
- ⑨ Suspended ceiling
- ⑩ Range hood
- ⑪ Exhaust air channel system
- ⑫ Kitchen exhaust air box
- ⑬ Exhaust air
- ⑭ Control for kitchen exhaust air box