

Restaurant fires in Australia typically start in the kitchen. Annually they cost millions of dollars in insurance claims and lost revenue to the business. They also risk the lives of staff and diners, and result in the loss of local revenue and jobs. Fortunately these fires are largely preventable if the right cleaning regimes are undertaken by qualified contractors and if appropriate automatic and hand held fire suppression systems are installed, tested and maintained.

There are three primary types of equipment involved in all restaurant cooking fires. These are: deep-fat fryers, cooking ranges and cooking grills. It is important to appreciate that protecting the cooking equipment is only part of the kitchen fire safety equation. It is equally vital to protect the exhaust canopy and ductwork that are installed above this equipment.

Vapours given off during the cooking of nearly all types of food typically result in a build-up of combustible oils and greases on exposed surfaces. This residue builds up over time and is considered to be a major fire hazard for the premises.



The oil and grease build up is easily seen and cleaned off external surfaces of the kitchen, which should as a minimum be given a thorough clean once a week. But the main build up which can't be seen is in the exhaust flue and ducting space. If this build-up ignites it contributes to a very swift spread of flames through the exhaust system.

Grease and oil build up within the ducting system is combustible at low temperatures. The heat from a cooking flare-up or a cooking ember enters the canopy or duct system, the internal build-up of grease and oil can ignite. There is then potential that this can develop into an uncontrolled fire that can quickly move through the entire length of the duct. A fire has the potential to move quickly through the ducting system and spread further to cause significant fire and smoke damage to not only the kitchen but other areas of the building.

The exhaust fan in the ducting system is another point for potential fire. Exhaust fans typically are located at the top of the kitchen extraction ducting. These pull out the grease and fat fumes into the atmosphere outside the kitchen. If these fans are not cleaned and maintained on a regular basis the build-up of the fat and grease can cause the fans to overheat and cause a fire.

There are many examples of insurance claims where fires emanating from kitchen exhaust duct systems have developed into large, uncontrolled fires. Trying to extinguish a fire once it is established inside the ductwork is impossible, as it is in a concealed space.

As a preventative measure, it is recommended that the filters and the range hoods above the cooking areas be inspected and cleaned regularly by a professional cleaning company. As a minimum the filters should be cleaned weekly and the duct system cleaned every six months. More regular cleaning may be required for kitchens with heavy use. A service agreement and service certificate should be supplied by the contractor for all cleaning programs.

For more information:
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