

Restaurant Fire Suppression Guide

Understanding Fire Suppression in Commercial Kitchens and Food Trucks



In this guide, we will explore fire suppression systems for commercial cooking establishments, their importance, and how Kidde Fire Systems help restaurants and food trucks operate with confidence.

In any commercial kitchen or food truck a reliable and effective fire suppression system is not just a necessary safety precaution – having a listed and approved system is a requirement by law in the US and many countries. Equipped with ranges, broilers, griddles, fryers and many other high-temperature cooking appliances, few other commercial environments demand proper fire protection more than modern cooking facilities. Having a system in place that quickly suppresses the fire is critical for protecting restaurant staff and avoiding costly shutdowns and repairs.

The kitchen is often called the heart of any restaurant because it is the hub of the restaurant's operations. Preventing a commercial kitchen fire is vital for protecting the livelihoods of owners and their staff but also to:

- Protect staff from serious and critical injuries.
- Ensure patrons of the restaurant or commercial space are protected.
- Minimize damage to equipment and facilities.
- Minimize loss of income, necessary repairs and/or replacing equipment.
- Prevent spread beyond the hood into other parts of the restaurant and/or building.

Did you know fires are more likely to occur in a restaurant than most of any other kind of business? According to the National Restaurant Association, 57% of all restaurant fires involve cooking equipment. Kitchen fires caused by cooking oils and grease buildup can escalate quickly and are not easy to dispel using any ordinary fire extinguisher. A specialized fire suppression system is needed to prevent kitchen fires from escalating.





The WHDR™ Kitchen Fire Suppression System is specifically designed for the challenging demands of both Commercial Cooking Applications and Food Truck Cooking Operations offering automatic 24-hour protection for the kitchen hood.

If fire is detected by the Kidde Fire Systems mechanical link, electric Detect-A-Fire® (DAF), or the system is manually activated by a remote pull station, the XV™ Control System will simultaneously actuate up to 20 pressurized agent storage containers, shut down fuel and power sources to appliances and activate the building fire alarm. By automatically shutting off the gas valve and electrical source under the hood, it eliminates the fuel source of the fire. Upon system activation, the nozzles discharge a wet chemical fire suppressant that quickly suppresses the flames and forms a protective layer that not only extinguishes the fire but also prevents re-ignition.

From hotel dining to food trucks or marine galleys, fine dining to fast-food restaurants, Kidde Fire Systems recognizes that no two kitchen designs are alike. Our pre-engineered fire protection solution is one of the most flexible system configurations in the industry and is specifically designed for the challenging demands of different cooking applications. Our customizable approach allows you to specify the type of detection, control, and cylinder sizes to best fit your application providing efficient, economical protection for all types of cooking facilities and design layouts. The WHDR™ Fire Suppression system is offered in appliance specific and overlapping protection designs.

Appliance Specific Design aims the nozzles at the hazard area of a specific appliance. This option is for kitchen designs with fixed appliance locations. This design option requires a smaller footprint and is a lower cost solution.

Overlapping Protection Design is a premium alternative to the more traditional appliance specific coverage described above. The design uses overlapping nozzle placement to create a continuous coverage area for a group of appliances and allows them to be re-arranged without changing nozzle placements. This provides simplicity and adaptability as appliances and their locations change during the life of the kitchen.

System Benefits:

- Automatic 24-Hour Protection provides worry-free protection of people and property
- Fast Acting – Designed to detect and suppress a fire in seconds
- Economical pre-engineered system simplifies design and installation
- Installation, Commissioning, Testing, Maintenance and Support by a global network of authorized Kidde Fire Systems distributors





Listing & Approvals

- UL & ULC Listed to UL 300 & UL 1254 Test Standards
- NFPA 96 & NFPA 17A Compliant
- NYC Fire Department Approved, COA #5646
- American Bureau of Shipping (ABS), Det Norske Veritas (DNV), & Lloyd's Register (LR) Approved to ISO 15371 for marine galleys

There is no room for compromise when it comes to fire protection. Whether you are opening a new restaurant or re-designing an existing operation, investing in a fire suppression system is an essential step in safeguarding your investment. Kidde Fire Systems helps commercial restaurant and food truck owners operate with confidence knowing they are protected by an advanced and effective system that is backed by 100+ year history of protecting lives, livelihoods, and icons. Visit us at www.kiddefiresystems.com to learn more about Kidde Fire Systems tailored solutions.

About Kidde Fire Systems:

Kidde Fire Systems products and services set the benchmark for special hazard fire suppression. For over 100 years, we've been trusted to protect people and property from the danger of fires. That trust is reinforced by the quality we instill in everything we do, from manufacturing fire and safety systems to providing system design and technical support.