

## The Engineering Specification

The fire suppression system shall be a pre-engineered, fixed pipe, automatic wet agent fire suppression system provided and installed for the kitchen exhaust hood(s) and plenum(s), ductwork, and cooking appliances requiring protection.

The system shall be Kidde Wet Chemical, Model WHDR manufactured by Kidde Fire Systems, 400 Main Street, Ashland MA or approved equal. The manufacturer shall be ISO 9001 certified.

The system shall conform to and be in accordance with UL300, NFPA 17A, NFPA 96, Kidde Model WHDR Instruction Manual and all applicable addendums, as identified by Underwriters Laboratories File No. U.L. EX-3559, all applicable local and state codes and standards, and all applicable insurance company requirements. The system shall use Kidde "APC" (Aqueous Potassium Carbonate) wet agent.

The "APC" wet agent shall be contained in one or more stored pressure DOT rated steel cylinder and valve assemblies.

The Kidde Model WDHR cylinder(s) shall be sized according to the Kidde Model WHDR Instruction Manual and filled with the required amount of "APC" wet agent. The cylinder(s) shall have a tin-nickel alloy plated brass valve, with pressure gauge.

The cylinder valve assemblies shall be capable of being stored and operated at temperatures between 0PF(-17.8PC) and 120PF(49PC).

Sufficient cylinder and valve assemblies shall be provided to protect the entire hazard area. Bracketing shall be provided to mount the cylinder securely to the intended mounting surface.

The system control equipment shall be capable of all functions associated with automatically and manually discharging the wet agent from all cylinder and valve assemblies, including automatically shutting off the heat source or fuel to all protected cooking appliances upon system discharge. System detection shall be (choose one) fusible link or electric heat detectors.

Nozzles shall be located to protect the exhaust duct(s), plenum(s) and all cooking appliances requiring protection. Nozzle choice, coverage and location shall be per the applicable Kidde U.L. listed instruction manual.

All nozzles shall be equipped with strainers to prevent foreign matter inside the distribution tubing from clogging the nozzle orifice. All nozzles shall be equipped with foil seals which prevent entry of grease and foreign matter into the nozzles and piping.

All nozzles shall incorporate a ring identification system to easily identify nozzle types. Rings are to be matched into the nozzle body by the manufacturer.

The entire hood, ductwork, appliance and fire suppression system installation must conform to the requirements of NFPA 96.

The distribution system may be either NPT Schedule 40 black steel or stainless steel piping or Type 304 stainless steel tubing.

All internal surfaces of piping or tubing are to be clean. All cut ends of pipe or tubing are to be reamed to remove burrs.



Kidde Wet Chemical Systems Are Available From

This literature is provided for informational purposes only. KIDDE assumes no responsibility for the product's suitability for a particular application. The product must be properly applied to work correctly. If you need more information on this product, or if you have a particular problem or question, contact KIDDE, Ashland, MA 01721: Tel: (508) 881-2000.



### Our Quality is Certified

Kidde WHDR Wet Chemical Fire Suppression Systems are made in America in accordance with ISO 9001 certified quality standards and installed and serviced by Kidde Distributors worldwide. When you've specified Kidde, you've chosen the world's most respected name in fire protection.

KIDDE FIRE SYSTEMS  
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## KIDDE WET CHEMICAL Fire Suppression Systems

24-Hour Protection for Commercial Cooking Areas

# KIDDE Wet Chemical Fire Suppression Systems

## The Next Generation in Protection for Modern Commercial Cooking Facilities

Hot cooking surfaces, round the clock operations, high-efficiency appliances. Today's commercial cooking facilities have all the elements necessary for devastating fires, disasters that can shut down a food service establishment for a day, a month, or forever.

That's why the engineers at Kidde have introduced the next generation in commercial cooking fire suppression. The Kidde Wet Chemical System. Your insurance company and local fire authorities will like the Kidde System because it exceeds the tough U.L. 300 Standard. Your managers will appreciate that the Kidde System installs out of sight, remains on duty around the clock and uses a fire suppression agent that minimizes after-fire cleanup operations.



But owners and operators of commercial cooking facilities will quickly come to realize the biggest benefit of the new Kidde System... its ability to rapidly detect and suppress fire in any type of cooking appliance before there is extensive damage or a costly business interruption.

### Exceeds U.L. 300 –

the stringent standard of performance brought about by the evolution of new cooking trends and appliances that operate at higher temperatures. Kidde Systems also comply with NFPA 96 and 17A, and other regulatory and insurance requirements.



### Superior Wet Agent –

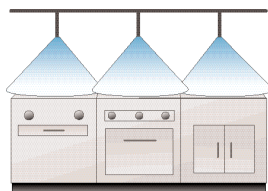
The Kidde wet chemical agent provides quicker flame knockdown and faster fire suppression, while blanketing the hazard area with a thicker saponification layer to prevent fire reflash.

### Quicker After-Fire Cleanup –

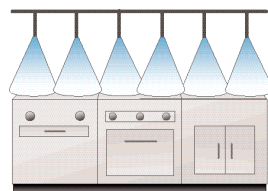
Simply use a damp cloth to wipe away the foamy Kidde wet chemical agent residue as soon as the appliances are cool and you're back in business.

### Most Effective Coverages –

The Kidde System offers unmatched coverage that uses fewer discharge nozzles and flow points to protect the hazard area, resulting in more efficient fire suppression with less hardware cost.



OURS



THEIRS

### A Precise Fit for Every Application –



Kidde's flexible pre-engineered design concept, coupled with the widest array of cylinder sizes in the industry, enable Kidde engineers to offer the most effective, efficient protection for every type of cooking appliance... fryers, range tops, griddles, broilers, woks as well as hood and duct systems.

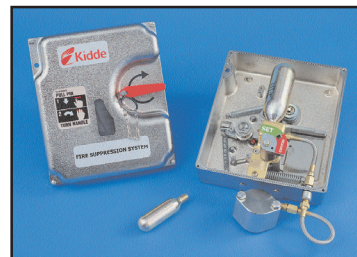


### On Duty – Out of Sight –

Kidde Systems blend seamlessly into any decor thanks to a flexible design concept that maximizes nozzle placement options and minimizes piping while offering a choice of black steel or stainless steel piping or stainless steel tubing.

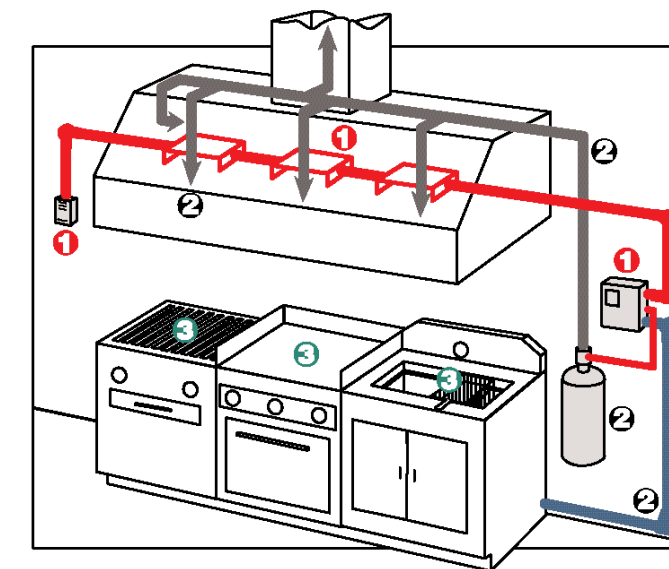
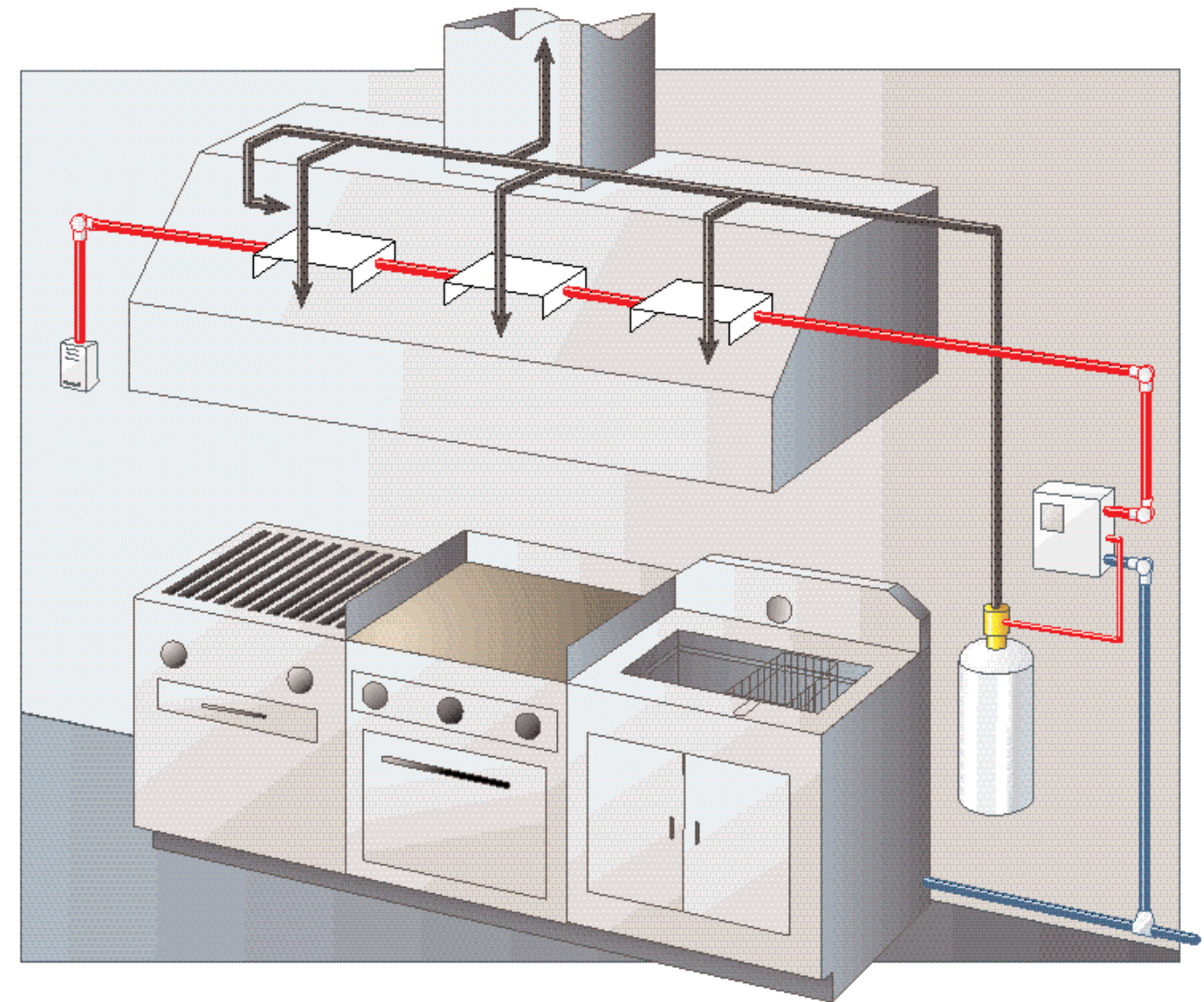
### Automatic or Manual Operation –

The Kidde  provides for actuation of up to 20 cylinders. Automatic detection is accomplished with either electrical, mechanical, or a combination of both. Pictogram operating instructions insure ease of system operation, while status view window aides in a quick check to insure system readiness. The  allows for complete customizing and future modifications of the system to meet the ever-changing complexity of restaurant operations. Additionally, the Kidde KRS-50 can be used as a single mechanical detection loop and can provide operation of up to 5 cylinders. The KRS-50 provides assurance of system operation while economically positioned to satisfy most independent restaurant owners.




### Worldwide Kidde Service –

Every Kidde System is backed by the Kidde reputation for quality and a worldwide network of Kidde Pre-Engineered Systems Distributors who install and maintain your Kidde System, supported by direct access to factory assistance and genuine Kidde parts.



### How Your Kidde System Works...

- 1** Fire is detected by Heat Detectors which activate the  Control Box. (or the Manual Pull Station is activated)... causing the Cylinder Valve to open.
- 2** Pressure stored in the Cylinder propels the Kidde Wet Chemical through the System Piping and out of strategically-located Nozzles onto the fire. The Kidde System automatically shuts off appliances to remove the heat source.
- 3** Kidde Wet Chemical knocks down flames quickly and forms a protective layer that suppresses fire and prevents fire reflash.