

Zone Defense

Totally Self-Contained



Flexible Fire Protection



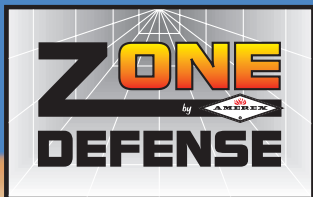
Variable
Volume

Grease
Extraction

Zone Defense

FlexConnect

Design your kitchen with flexibility



The Amerex® Zone Defense™ restaurant fire suppression system was developed to solve the real out for cleaning, or replaced with different appliances to accommodate changing menus. Conventional use on a particular appliance. In today's active kitchen, the movement of appliances is commonplace anywhere under the hood, as long as they remain in the zone of protection. Exceptions to this are up to the hazard type.

Zone of Protection

The "Zone of Protection" is created by the use of overlapping spray from multiple nozzles creating an area that is totally flooded by wet chemical agent. This is accomplished by placing Amerex total flood nozzles in a straight line from one end of the hood to the other. The resulting zone of protection is a rectangular area 34 inches (986.4 cm) deep X hood length. All nozzles are placed at the same elevation and aimed straight down. The cooking equipment is protected no matter where it is located as long as it is within the zone.

In a fire, the system works like this:

1. When a fire starts, either the pneumatic linear detection tubing will automatically detect the fire, or the manual pull station can be used.
2. Either method will interrupt the gas or electrical power to the appliances preceding system discharge.
3. The chemical agent extinguishes the flame and cools the hazard while securing the fire with a smothering foam reaction called saponification.

Detector: A pneumatic tube that will automatically actuate the fire extinguishing system at a predetermined temperature. Located behind the filter bank.

Zone Defense™ Total Flood Nozzle: Device used to deliver a specific quantity, flow and discharge pattern of fire suppression agent.

Dedicated Appliance Protection Nozzle: A nozzle dedicated to the protection of a cooking appliance with an enclosed cooking hazard like an upright broiler.



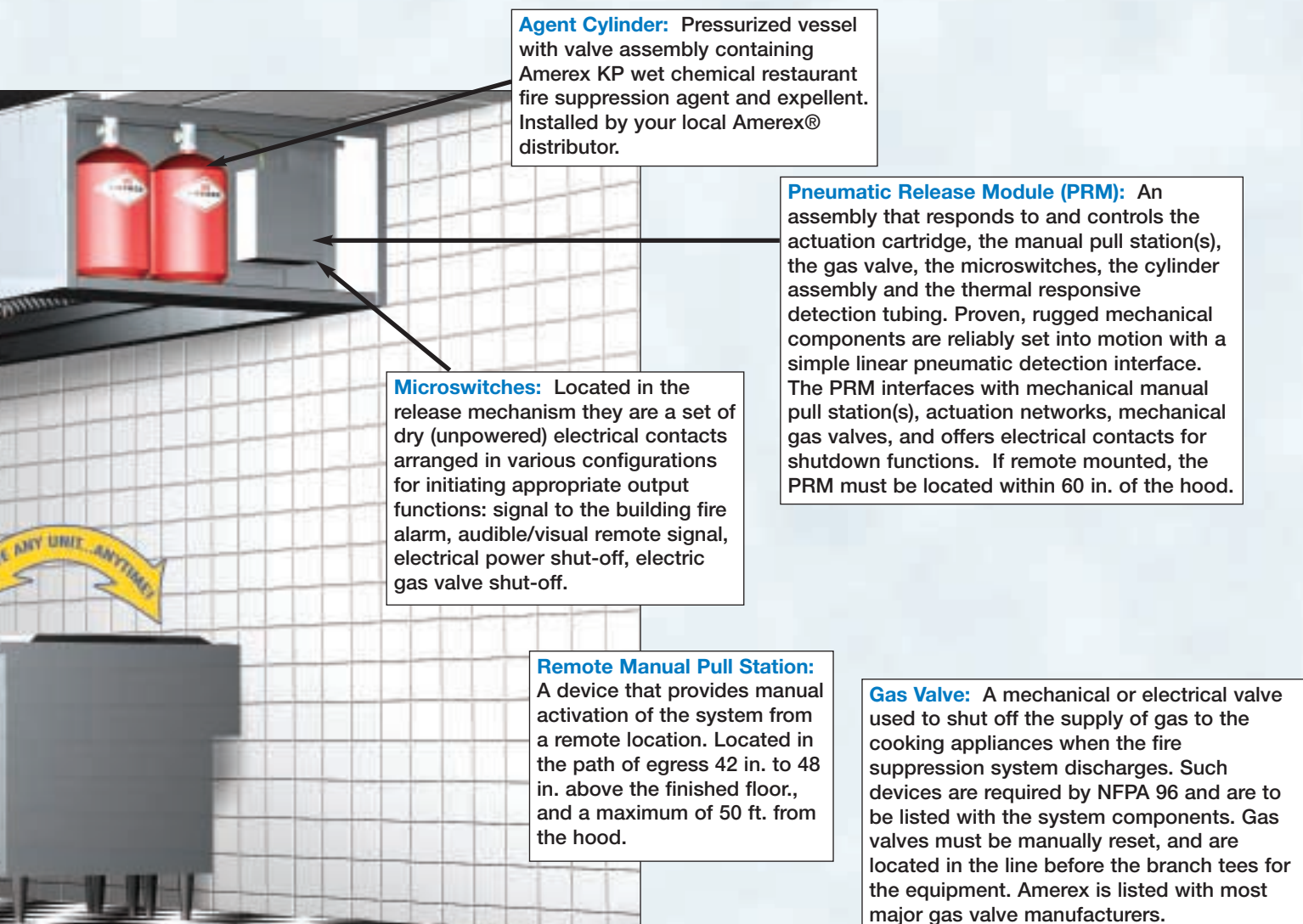
Zone of Protection: Consists of discharge nozzles equally spaced apart over the entire length of the hood. Nozzles used in this manner provide protection for eligible appliances the total length of the hood with no concern for appliance configuration. Appliances may be switched or moved about within the zone of protection without altering system design or installation.

Code Information

The Amerex® Zone Defense™ Restaurant Fire Suppression System is constructed in compliance with the following:

- National Fire Protection Association (NFPA) Bulletin #96 and #17A
- UL Standard 300 Listed
- ISO 9001-2000

world problem of how to protect a kitchen where the appliances are moved around, rolled in and out. Traditional systems rely on the appliance being permanently placed because the nozzles are dedicated for that appliance. The Zone Defense™ fire system by Amerex is non-dedicated; appliances can be positioned under the hood. Upright broilers, salamanders, shelves – These appliances require dedicated nozzle protection due



Agent Cylinder: Pressurized vessel with valve assembly containing Amerex KP wet chemical restaurant fire suppression agent and expellent. Installed by your local Amerex® distributor.

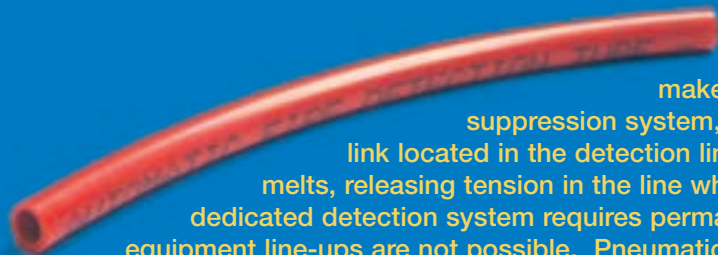
Pneumatic Release Module (PRM): An assembly that responds to and controls the actuation cartridge, the manual pull station(s), the gas valve, the microswitches, the cylinder assembly and the thermal responsive detection tubing. Proven, rugged mechanical components are reliably set into motion with a simple linear pneumatic detection interface. The PRM interfaces with mechanical manual pull station(s), actuation networks, mechanical gas valves, and offers electrical contacts for shutdown functions. If remote mounted, the PRM must be located within 60 in. of the hood.

Microswitches: Located in the release mechanism they are a set of dry (unpowered) electrical contacts arranged in various configurations for initiating appropriate output functions: signal to the building fire alarm, audible/visual remote signal, electrical power shut-off, electric gas valve shut-off.

Remote Manual Pull Station: A device that provides manual activation of the system from a remote location. Located in the path of egress 42 in. to 48 in. above the finished floor, and a maximum of 50 ft. from the hood.

Gas Valve: A mechanical or electrical valve used to shut off the supply of gas to the cooking appliances when the fire suppression system discharges. Such devices are required by NFPA 96 and are to be listed with the system components. Gas valves must be manually reset, and are located in the line before the branch tees for the equipment. Amerex is listed with most major gas valve manufacturers.

Pneumatic Linear Detection



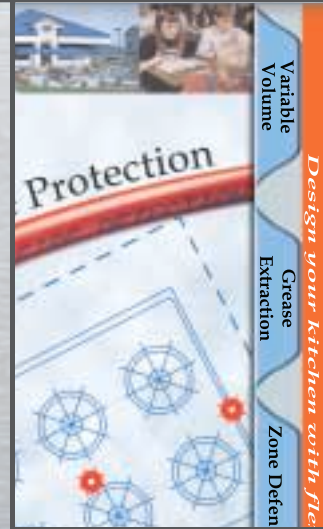
Pneumatic Linear Detection is the device that makes Zone Defense™ feasible. In a traditional fire suppression system, each piece of cooking equipment has a fusible link located in the detection line in the hood. In the event of a fire this link melts, releasing tension in the line which then triggers the wet chemical system. This dedicated detection system requires permanent equipment placement - changing cooking equipment line-ups are not possible. Pneumatic Linear Detection runs the length of the hood; no matter where the cooking equipment is placed under the hood, detection is available.

Quick Specification

The hood(s) shall include an Amerex® Zone Defense™ Model FSSZ pre-engineered factory pre-piped fire suppression system provided exclusively by Greenheck. The system shall be UL 300 Listed using full flood technology which utilizes non-appliance specific nozzles equally spaced the length of the hood. The system shall be fully self-contained requiring no connections to water supply. This system allows for future equipment changes or additions without compromising the integrity of the system or violating nationally accepted fire protection standards. The system shall be activated using a pneumatic release module with pneumatic linear detection tubing. The use of a fusible link detection system is not allowed.

The system piping shall be installed in the hood at the time of construction above the hood or within the supply plenum, and shall be concealed from view. No exposed piping is acceptable, with the exception of appliance drops. A certified local Amerex distributor shall be selected by the factory for final system hook-up.

The system shall be capable of automatic detection and actuation and/or remote manual actuation. The system shall have the fire suppression capabilities to protect the duct(s), plenum(s), filter area(s) and cooking equipment. Accessories shall be available for mechanical or electrical gas line shut-off applications and two (SPDT) single pull double throw microswitches for activation of the shunt trip breaker (provided by others) for electrical equipment. The system shall also include the PRM mechanical release module, agent cylinder, agent, detectors, fusible links, liquidtight fittings, remote manual pull station, and schedule 40 black iron pipe with chrome sleeving for exposed areas.



Who is Amerex®?



Beginning in 1971, Amerex® Corporation has grown to become one of the world's largest and most innovative manufacturer of hand portable and wheeled extinguishers for commercial and industrial applications. With the introduction of state-of-the art gas detection systems along with pre-engineered fire suppression systems for vehicles, commercial cooking operations and paint spray booths, Amerex® has earned a reputation for excellence in the fire protection industry.

The fire protection industry has seen sweeping advances take place over the past 50 years and most test standards have been revised to keep up with modern day fire hazards. While other companies have been in the fire protection industry longer than Amerex®, no other company has surpassed the quality, service and innovation provided by Amerex® Corporation in recent times. With quality products, constant innovation, and excellent customer support, Amerex® Corporation is unsurpassed in its pioneering efforts to provide better fire protection throughout the world.

Our Warranty

Greenheck warrants this equipment to be free from defects in material and workmanship for a period of one year from the purchase date. Any units or parts which prove defective during the warranty period will be replaced at our option when returned to our factory, transportation prepaid. Motors are warranted by the motor manufacturer for a period of one year. Should motors furnished by Greenheck prove defective during this period, they should be returned to the nearest authorized motor service station. Greenheck will not be responsible for any removal or installation costs.

As a result of our commitment to continuous improvement, Greenheck reserves the right to change specifications without notice.

