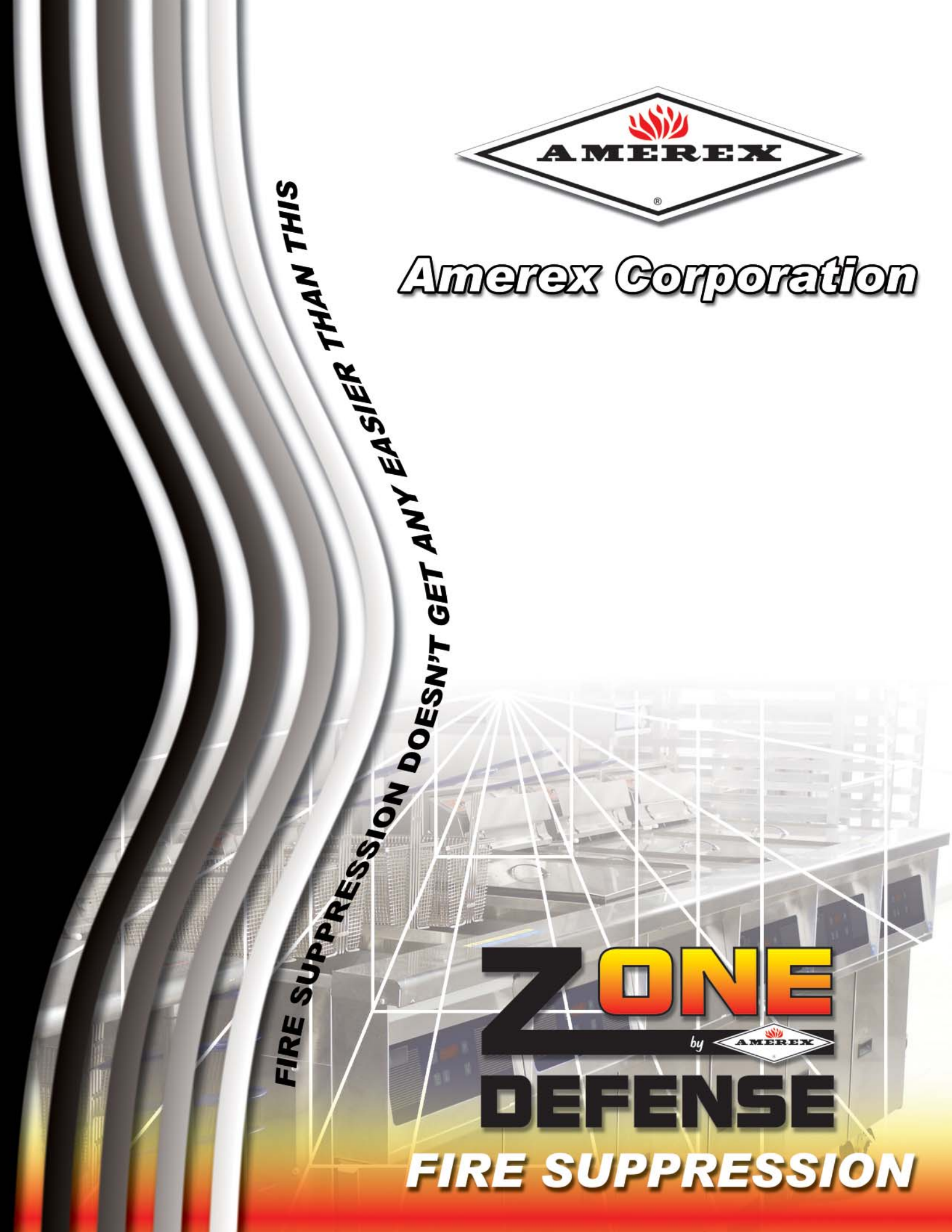
AMEREX

Amerex Corporation

FIRE SUPPRESSION DOESN'T GET ANY EASIER THAN THIS



ZONE by AMEREX DEFENSE

FIRE SUPPRESSION

“ZONE DEFENSE” FIRE SUPPRESSION SYSTEM SPECIFICATIONS

GENERAL:
The Zone Defense Restaurant Fire Suppression System is a pre-engineered, wet chemical, stored-pressure type with a fixed nozzle agent distribution network manufactured by Amerex Corporation. The system is listed by Underwriter’s Laboratories, Inc., ULC and tested to UL Standard 300. The system shall be designed, installed and maintained in accordance with: Amerex Part No. 16640 “Design, Installation and Maintenance Manual”, N.F.P.A. 96, N.F.P.A. 17A, local codes and ordinances by an Authorized Amerex Zone Defense Systems Distributor using factory trained personnel. The Zone Defense system is fully self-contained and does not require electrical power or connection to either domestic water supply or fire sprinkler supply lines.

AGENT: The system agent is Amerex KP liquid fire suppressant, a potassium acetate based solution that suppresses cooking grease fires through both saponification and cooling. The agent has a pH of 9 or less and does not harm stainless steel surfaces.

AGENT CYLINDERS: (2.75, 3.75, and 4.75)
The agent cylinders are mild steel DOT 4BW 240 specification cylinders, tested to 480 PSI (3309 kPa). The agent cylinder/ discharge valve assembly is fully factory charged with Amerex KP liquid agent and pressurized to 240 PSI (1655 kPa).

MECHANICAL RELEASE MODULE (MRM):
The mechanical release module is the spring-loaded type using a mechanical input and electrical, mechanical or pneumatic outputs. It is capable of actuating from one to ten agent cylinder/valve assemblies using one nitrogen cylinder and is operated either automatically by the detection network or manually by a remote manual pull station.

The MRM enclosure, available in either stainless steel or red painted steel has a system status indicator and a window to observe the nitrogen cylinder pressure. The enclosure has provisions for applying tamper seals after final testing or periodic maintenance. The MRM enclosure has knockouts on three sides (top, bottom & right) to accept conduit. The MRM has two SPDT micro switches pre-installed.

MRM LINEAR FUSIBLE LINK DETECTION:
The link to link system consists of four major components - conduit connector, cable segment beginning and end, conduit box, and link to link cable segment. The link to link cable segment ensures that the links are equally spaced at 24” center to center for whole hood detection.

PNEUMATIC RELEASE MODULE (PRM):
The PRM offers superior detection by using a linear pneumatic detection system. The PRM detection system consists of the PRM, thermal responsive tubing and end of line fitting. The tubing is pressurized through a small “accumulator” inside the enclosure, routed throughout the hazard area When exposed to a fire condition, the tubing ruptures, relieving all of the pressure in the tubing and accumulator thus firing the system using a nitrogen cylinder. The PRM comes complete with enclosure, accumulator, end of line fitting, and connector for up to two remote mechanical manual pull stations, two SPDT micro switch, and “knock-outs”. It is capable of firing up to 10 - agent cylinder assemblies and actuating up to two gas valves. The tubing is sold separately and is cut to length. Stainless or red enclosure.

ACTUATION CYLINDER:
The actuation cylinder is filled with 10 cu. in. of nitrogen and has an integral pressure gauge that allows easy field verification of pressure. This cylinder shall be capable of being refilled in the field by an Authorized Amerex Zone Defense Systems Distributor and shall not require periodic hydrostatic testing.

STAINLESS STEEL ENCLOSURE (Optional):
An enclosure housing an MRM and one agent cylinder is available. The pressure gauges for the nitrogen cylinder and the agent cylinder are visible without removing the front cover of the cabinet. Also available in a stainless steel single agent cylinder enclosure.

AGENT CYLINDER BRACKET:
The agent cylinder bracket is steel, painted red.

DISCHARGE NOZZLES:
Discharge nozzles are made of chrome-plated brass, and shall consist of a one piece tip/body, strainer and blow off cap.

AGENT DISCHARGE PIPING:
Agent discharge piping for the Zone Defense system shall consist of nozzles placed no further apart than 20 inches the entire length of the hood creating an overlapping nozzle spray pattern which permits movement of the protected appliances such as fryers, woks, ranges and charbroilers, without altering the Zone Defense discharge nozzle locations. Specific appliance coverage can be used where necessary.

MANUAL PULL STATIONS:
The manual pull stations are a “dual action” type. Both a ring pin and lever must be pulled in order to discharge the system manually.

MECHANICAL GAS VALVES - ¾” TO 3 “ SIZES:
A mechanical gas valve, specifically listed by UL for use with the Amerex Zone Defense system, shall be installed for automatic shut off of gas whenever gas appliances are used. The valve has a “pull to close” design requiring a pull force to trip a latch that holds the valve in the open position. The cover of the gas valve has a visual indicator showing the valve’s state of readiness. The Amerex mechanical gas valve body is made of brass and is UL Listed for both natural gas and propane. Existing mechanical valves, if operating, may be used according to the listed Zone Defense Design, Installation, Maintenance and Recharge Manual.

ELECTRICAL GAS VALVE - ¾” TO 3” SIZES:
If an electrically operated gas valve is required, it must be UL Listed for use with the Amerex Zone Defense system. The use of a UL listed manual reset relay is mandatory to prevent unmonitored gas flow due to power outage. A micro switch mounted in the PRM is used to control the closing of the gas valve at the moment of system actuation.

ELECTRIC MICRO SWITCH:
UL listed electric micro switches are provided to accomplish system output functions. The switches are “stackable” inside the PRM without requiring extra mounting hardware. From 1 to 4 sets of dry form “C” contacts are available.

*** Amerex warrants hardware for 3 years against manufacturing defects**

FIRE SUPPRESSION DOESN'T GET ANY EASIER THAN THIS!

NO WATER SUPPLY NEEDED

SELF-CONTAINED SYSTEM

NOW AVAILABLE WITH TWO DETECTION NETWORK OPTIONS!

PNEUMATIC DETECTION

METAL STAND-OFF CLIPS HOLD DETECTION TUBE SECURELY

NO CABLES, NO CORNER PULLEYS

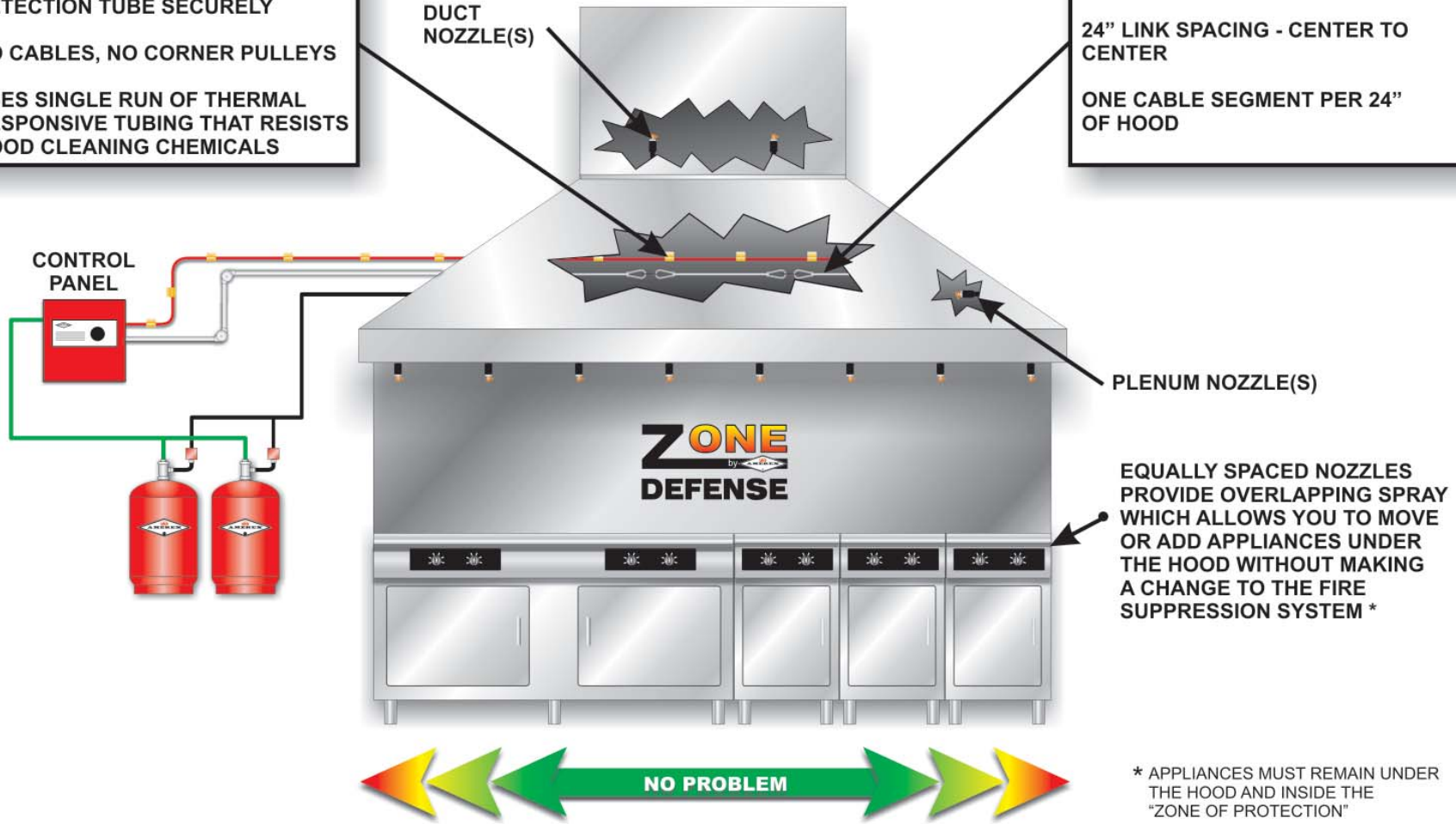
USES SINGLE RUN OF THERMAL RESPONSIVE TUBING THAT RESISTS HOOD CLEANING CHEMICALS

LINEAR FUSIBLE LINK DETECTION

FUSIBLE LINK DETECTION

24" LINK SPACING - CENTER TO CENTER

ONE CABLE SEGMENT PER 24" OF HOOD



Specific appliance coverage is required in cooking areas where backshelves, salamanders, or tilt skillets are present. Amerex KP Systems may be a better alternative for those installations. The area between the appliance surface and the bottom of hood should be open and without obstructions that could prevent agent flow to the appliance in the event of a fire. If obstructions are present, additional coverage is required to protect those areas.

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