

**AMEREX
SPECIFICATIONS
for
K-P SERIES
PRE-ENGINEERED WET CHEMICAL
RESTAURANT FIRE SUPPRESSION SYSTEM**

GENERAL: The restaurant fire suppression system shall be the Amerex KP Series pre-engineered, wet chemical, stored-pressure type with a fixed nozzle agent distribution network. **The system shall be listed by Underwriter's Laboratories, Inc., ULC and tested to U.L. Standard 300 "Fire Extinguishing Systems for Protection of Restaurant Cooking Areas, Fire Testing of" effective 11-21-1994. Systems which were listed prior to U.L. 300 shall not be accepted. The system components manufacturer shall be registered under ISO 9002.** The system shall be designed, installed and maintained in accordance with: Amerex Part Number 12385 "Design, Installation and Maintenance Manual", N.F.P.A. 96, N.F.P.A. 17A, local codes and ordinances by an Authorized Amerex KP systems distributor using factory trained personnel.

Upon completion of system installation and final testing with the local Authority Having Jurisdiction, an Owner's Manual for the system shall be given to the owner or owner's agent. The Authorized Amerex KP Systems Distributor shall give instruction on the use of the system and hand portable fire extinguishers to those employees designated by the owner or owner's agent.

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

AGENT CYLINDER/DISCHARGE VALVE ASSEMBLY: The agent cylinder shall be a mild steel DOT 4BW 240 specification cylinder, tested to 480 PSI (3309 kPa). The agent cylinder/discharge valve assembly shall be fully charged and pressurized at the factory with 3.75 gal. (14.2 liters) Amerex KP liquid agent pressurized to 240 PSI (1655 kPa). The agent cylinder shall require hydrostatic testing at intervals not to exceed 12 years. The discharge valve shall be made of solid brass with a gauge showing cylinder pressure and a port for pneumatic valve actuation.

DETECTION: The detection network shall be continuous cable run using detectors specifically listed for use with the Amerex KP System. No "S" hooks are allowed. The detectors shall consist of a detector bracket made of 14 gauge steel, a link holder made of aluminum and a fusible link.

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

The remote manual pull station, detection network and the mechanical gas valve shall all be operated by separate 1/16" stainless steel cable runs through EMT conduit using corner pulleys with stainless steel ball bearings and factory supplied conduit offsets. **NO FIELD BENDING OF CONDUIT IS ALLOWED.** The detection network cable, manual pull and mechanical gas valve cables may enter the MRM through any of three sides.

The MRM enclosure shall have a system status indicator and a window to observe the nitrogen cylinder pressure. The enclosure shall be capable of surface or semi-recessed mounting and shall have provisions for applying tamper seals after final testing or periodic maintenance. The MRM enclosure shall have knockouts on all four sides to accept conduit or pipe for field devices. The MRM shall have one SPDT micro switch and wire gutter pre-installed.

NITROGEN CYLINDER: The nitrogen cylinder shall be a 10 cu. in. cylinder with an integral pressure gauge which can be observed when installed in the MRM. The nitrogen cylinder shall be capable of being refilled in the field by an Authorized Amerex KP Systems Distributor.

AGENT CYLINDER BRACKET: The agent cylinder bracket shall be steel, painted red, with a factory supplied discharge hose and pipe outlet. The pipe outlet shall be painted steel with 3/8" female NPT to allow completion of the discharge piping without the agent cylinder in place. The pipe outlet shall be adjustable to allow piping to exit the outlet in any of three directions.

OPTIONAL STAINLESS STEEL ENCLOSURE: An optional stainless steel enclosure housing an MRM and 1 agent cylinder shall be available. The pressure gauges for the nitrogen cylinder and the agent cylinder shall be visible without removing the front cover of the enclosure.

AGENT DISTRIBUTION NETWORK PIPING: Pipe used for the distribution network shall be 3/8" schedule 40 black, chrome or stainless steel. **HOT DIPPED GALVANIZED PIPE SHALL NOT BE USED FOR THE AGENT DISTRIBUTION NETWORK.**

DISCHARGE NOZZLES: Discharge nozzles shall be made of brass, and shall consist of a body, strainer, tip, retaining nut and blow off cap. The part number, flow number and discharge pattern shall be stamped into the nozzle tip. Each nozzle shall be listed for specific applications under U.L. 300.

MANUAL PULL STATIONS: The manual pull station shall be a “dual action” type. Both a ring pin and lever must be pulled in order to discharge the system manually. The faceplate shall be 5 1/4" in diameter to cover “rough in” holes for recessed mounting.

MECHANICAL GAS VALVES - 3/4 TO 2 INCH SIZES: A mechanical gas valve, specifically listed by U.L. for use with the Amerex KP system, shall be provided for automatic shut off of gas whenever gas appliances are used. The mechanical gas valve shall have a cast brass body and stainless steel internal parts. The valve shall be a “pull to close” design requiring a pull force to trip a latch which holds the valve in the open position. The cover of the gas valve shall have a visual indicator showing the valve’s position.

ELECTRICAL GAS VALVE: If an electrically operated gas valve is required, it shall be U.L. Listed for use with the Amerex KP system and shall operate by using a snap action switch and a U.L. listed manual reset relay.

ELECTRIC SNAP ACTION SWITCHES: U.L. listed electric snap action switches shall be provided to accomplish system output functions. The switches shall be “stackable” inside the MRM without requiring extra mounting hardware. From 1 to 4 sets of dry form C contacts shall be available.

NOTE: ALL GAS VALVES ARE TO BE INSTALLED IN THE GAS LINE BY A QUALIFIED UTILITY OR MECHANICAL CONTRACTOR UNDER DIVISION 15. ALL ELECTRICAL INSTALLATION SHALL BE DONE BY QUALIFIED ELECTRICIANS UNDER DIVISION 16. REQUIREMENTS FOR AUXILIARY OUTPUTS SUCH AS BUILDING FIRE ALARM CONNECTIONS OR CENTRAL STATION CONNECTIONS ARE TO BE COORDINATED WITH THE FIRE ALARM CONTRACTOR UNDER DIVISION 16.