SEVO™ SYSTEMS
Safe Environmental Choice

BLACK DIAMOND

FIRE PROTECTION FOR INDUSTRIAL KITCHENS

MISSION

SEVO Systems Black Diamond Fire Protection System for Industrial Kitchens is safe for humans and environmentally friendly. It utilizes the most advanced technology available, differentiating SEVO from all others in the market.

CLEAN AGENT FIRE SUPPRESSION SYSTEMS

INTRODUCING THE: BLACK DIAMOND

INTRODUCTION

Fire is one of the biggest safety concerns in industrial kitchens. According to 2010 assurance company reports, 5 restaurant sector companies a day suffer fire related losses. This adds up to millions of dollars annually.

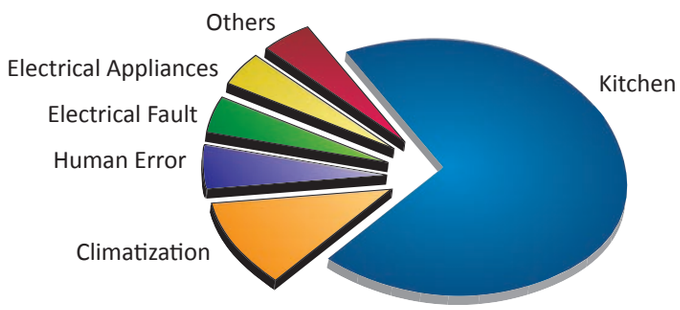
The owner of the kitchen is responsible for evaluating risk and taking the necessary actions to effectively prevent and protect kitchen appliances from fire. A SEVO Black Diamond System is an investment of less than 5% of all the kitchen equipment. In the event of a fire the Black Diamond system will minimize losses and limit kitchen down time.

FIRE PROTECTION:

ESSENTIAL WHEN FIRE IS INVOLVED IN OUR DAILY WORK

It is extremely important to have a fire protection system in the kitchen. Statistics show that the majority of fires in hotel restaurants originate in the kitchen.

FIRE ORIGIN:



SOURCE: National Fire Incident Reporting System (NFIRS) - 2007 & 2009

COST EFFECTIVE

A Black Diamond system can fit inside any industrial kitchen. Each of the 5 different cylinder sizes (9, 12.7, 18.7, 25 and 35L volume) allows protection of both small and large industrial kitchens with just a single cylinder. Improved technology reduces the amount of equipment required, which makes installation simpler and keeps costs lower.

BLACK DIAMOND CYLINDER

OUR POINT OF VIEW

Active fire protection minimizes the damage that a fire can cause to equip-ment and personally. The when fire is involved in daily work, it becomes more important to have the proper protections in place.

BLACK DIAMOND provides the best fire protection available for kitchens because it uses the most advanced technology and agent on the market to-day. It is fully automatic so there need not be anyone present to activate it in the event of a fire. This means expensive kitchen equipment is protected around the clock.

Additionally, BLACK DIAMOND agent, GEM Protect is non-corrosive and easy to clean which minimizes down time after a fire.

Jon Flamm. General Manager

DIFFERENT NOZZLES

DIFFERENT KINDS OF APPLIANCES

Using the same kind of nozzle for all types of appliances means a loss in system effectiveness and efficiency. More agent must be utilized in order to compensate for the differences. Black Diamond has an array of nozzles to customize the system according to the requirements for each appliance. The discharge angle, agent flow, and position are perfectly tested to get maximum systems benefits.

SEVO SYSTEMS PRODUCTS REVOLUTIONIZE THE DESIGN, INSTALLATION, AND MAINTENANCE OF FIRE PROTECTION SYSTEMS FOR INDUSTRIAL KITCHENS

SAFETY THE FIRST

SEVO Systems is raising the ribbon once again, with fire protection systems for industrial kitchens: BLACK DIAMOND

We are raising the bar with a new, highly effective extinguishing system that utilizes the most advanced technology on the market.

We are raising the bar with a detection system that is both easy to install and maintain, with the quality and confidence of SEVO Systems.

Other fire suppression alternatives are much more expensive and di-fficult to install. This is the reason we developed Black Diamond. The new extinguishing fluid GEM Protect wet chemi-cal agent, is non-toxic, compatible with human presence, en-vironmentally friendly, and easy to clean up while maintaining the extinguishing power of other products on the market.

SPECIAL NOZZLES

"The Black Diamond uses a specialized nozzle, making it the most efficient system for extinguishing fat and oil fires. Black Diamond is very versatile, regardless of the type or number of appliances or hazards in need of protection.

Black Diamond is designed and installed according to UL-300, NFPA 17A and NFPA 96."

Javier Sánchez. Technical Manager

BOQUILLA CON CAPERUZA

MANTEINANCE & INSTALATION

Black Diamond is easy to install and maintain. The Black Diamond Pneumatic tubing allows push-to connect installation, which is both simpler and more stable than other systems on the market.

The minimal amount of actuation equipment reduces the scale and scope of maintenance required

APPLICATIONS:

Snack bar
Restaurants
Coffe shops
Buffets
Fritter store

Chicken roasters
Fast food
Ethnic food
Hoteles & Resorts
Health clubs

Mall / Shoppings
School restaurant
Universitiy
Hospital
Isle kitchen

Wall kitchen
Burners
Charbroilers
Fryers
Ovens

Grills
BBQ
Pots
Boats
Residences

Fritter
Wok
Kebab
Geriatric
Ship

FIRE IN INDUSTRIAL KITCHENS

The activity in an industrial kitchen is frenetic; the temperature is very high while a large number of people work in close proximity to flammable cooking ingredients such as fats and oils. Flammable cooking mediums stored in large quantities suffer in the high temperatures of the kitchen. Their cooling capacity is very low, making traditional fire extinguishers ineffective in that type of hazardous situation. Fat and oil fires are considered Class F (Europe) and K (USA).

GEM PROTECT FIRE EXTINGUISHING AGENT

GEM Protect wet chemical fire extinguishing agent utilizes potassium salt. It is a water miscible product, liquid in ambient pres-sure and temperature and has a low viscosity. The agent is stabled; therefore it will not deteriorate over time.

The agent is discharged in a very fine mist, cooling the fire to be-low its auto-ignition. It extinguishes by separating oxygen and fuel, and is an efficient extinguishing agent for Class F or K fires. The agent reacts with grease to form a foam-like layer commonly called saponification which starves the fire of oxygen, halting combustion and preventing re-ignition.

EXTINGUISHING SYSTEM

The cylinder valve assembly is pressurized with dry nitrogen to 18 bar (260 psi). The valve is opened by the pneumatic or electric detection system, then the agent is discharged through the piping network.

Two possible options for the piping network are 15mm or 1/2” stainless steel ASTM grade B sch 40. Following Black Diamond design indications we ensure the discharge of all the nozzles at the same time, with the appropriate agent quantity preventing re-ignition.

BLACK DIAMOND TRAINING

Black Diamond is designed, installed, and serviced by trained and certified installers.

Please check with a SEVO Systems global distributor for more information: www.sevosystems.com

FIRE PROTECTION FOR INDUTRIAL KITCHENS

KITCHEN FIRES COST MILLIONS OF DOLLARS IN ANNUAL LOSSES

DETECTION SYSTEM

An effective fire detection system is essential to minimizing the damage from a fire. Detection can have single or multpile points of detection. Black Diamond detects throughout the hood and ducts as well as in the zones around kitchen appliances at risk for fires.

Black Diamond fire detection system offers two types of detection: Electric and Pneumatic. A certified Black Diamond installer will determine which type of detection is indicated based on the type of kitchen and kitchen appliances being protected.

CONTROL PANEL

ELECTRIC DETECTION SYSTEM

The Black Diamond System utilizes electrical detection by a control panel and a thermal detector cable. The thermal line will detect a range of temperatures 88ºC, 105ºC or 180ºC depending on the hazard type. An electric solenoid on the top of the valve will discharge the system.

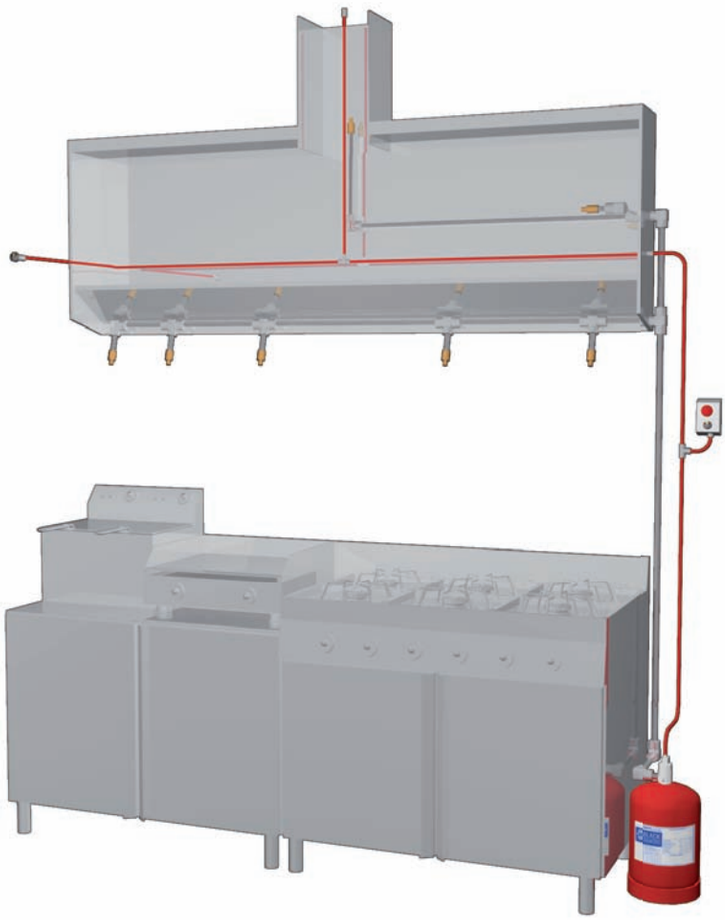
Control panel features allow options such as cellular calling, as well as communication to the building fire alarm panel.

QUICK AND EFFICIENT DETECTION

The detection system is the first actor in fighting fires, its task is to know when exist a fire, and report to the protection system of the situation.

Quick detection system performance is paramount to achieve fast activation and minimize damage to staffs and equipments.

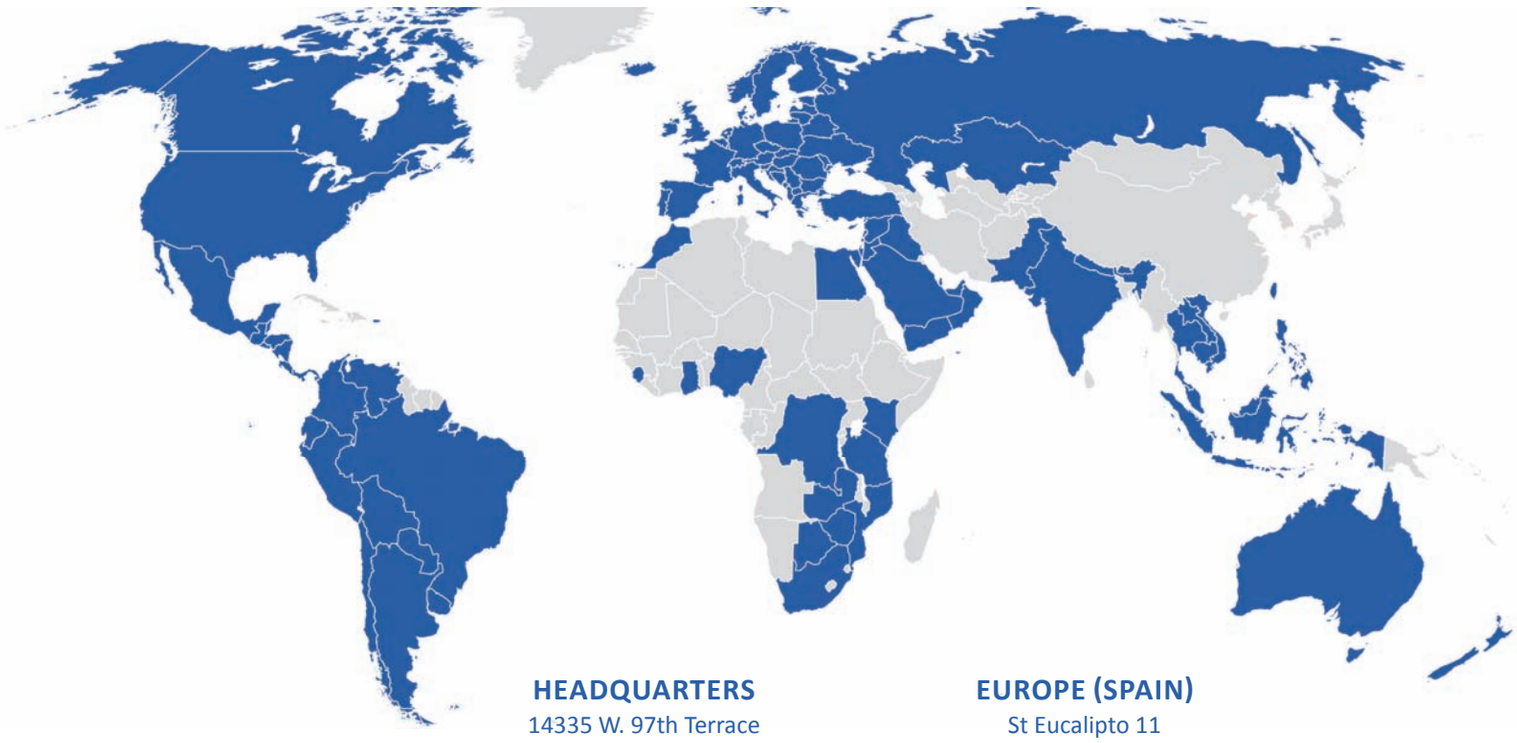
The fire can be caused by different reasons and started in very different places. For this reason, the fire detection systems of Black Diamond detect along the sensing tube and not at specific points as other systems in the market.



PNEUMATIC DETECTION SYSTEM

The pneumatic detection system uses a presurized polimeric detection tube. The tube is distributed through the hood and duct. The pneumatic detection tubing is temperature sensi-tive, and acts as a continuous linear thermal detector that ruptures at either (120ºC), or (180ºC) depending on the hazard area being protected.

SEVO™ SYSTEMS DISTRIBUTION IS ESTABLISHED IN OVER 60 COUNTRIES, DESIGNING, INSTALLING, COMMISSIONING AND MAINTAINING SEVO 1230 SYSTEMS IN MISSION CRITICAL FACILITIES.



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HISTORY OF SEVO SYSTEMS

SEVO Systems was formed in 2001 to develop and commercialize a revolutionary new technology, 3M™ Novec™ 1230 Fire Protection Fluid. This development represented a major breakthrough in halon replacement technology - combining high extinguishing efficiency with excellent environmental, health and safety properties. Exclusively utilizing Novec 1230 Fluid, SEVO revolutionizes the way clean agent fire suppression systems are designed, installed and maintained.

FIRE PROTECTION SYSTEM FOR INDUSTRIAL KITCHENS

RESTAURANTS COFFEE SHOPS DUCTS HOODS BUFFETS CHICKENG ROASTERS HOTELS&RESORTS SHOPPING MALLS BURNERS CHARBROILERS UNIVERSITIES HOSPITALS FRYERS GRIDDLES SCHOOL CAFETERIAS FAST FOOD RESTAURANTS OVENS WOK KEBAB ETNIC FOOD RESTAURANTS GRILLS ISLE/WALL KITCHENS RESTAURANTS UNIVERSITTY PUBLIC BUILDINGS RESIDENCES ASSOCIATIONS RESTAURANTS COFFEE SHOPS DUCTS HOODS BUFFETS CHICKENG ROASTERS HOTELS&RESORTS SHOPPING MALLS BURNERS CHARBROILERS UNIVERSITIES HOSPITALS FRYERS GRIDDLES SCHOOL CAFETERIES FAST FOOD RESTAURANTS OVENS WOK KEBAB ETNIC FOOD RESTAURANTS GRILLS ISLE/WALL KITCHENS RESTAURANTS UNIVERSITTY PUBLIC BUILDINGS RESIDENCES ASSOCIATIONRESTAURANTS COFFEE SHOPS DUCTS HOODS BUFFETS CHICKENG ROASTERS HOTELS&RESORTS SHOPPING MALLS BURNERS CHARBROILERS UNIVERSITIES HOSPITALS FRYERS GRIDDLES SCHOOL CAFETERIAS FAST FOOD RESTAURANTS OVENS WOK KEBAB ETNIC FOOD RESTAURANTS GRILLS ISLE/WALL KITCHENS RESTAURANTS UNIVERSITTY PUBLIC BUILDINGS RESIDENCES ASSOCIATIONS RESTAURANTS COFFEE SHOPS DUCTS HOODS BUFFETS CHICKENG ROASTERS HOTELS&RESORTS SHOPPING MALLS BURNERS CHARBROILERS UNIVERSITIES HOSPITALS FRYERS GRIDDLES SCHOOL CAFETERIAS FAST FOOD RESTAURANTS OVENS WOK KEBAB ETNIC FOOD RESTAURANTS GRILLS ISLE/WALL KITCHENS RESTAURANTS UNIVERSITTY PUBLIC BUILDINGS RESIDENCES ASSOCIATIONS RESTAURANTS COFFEE SHOPS DUCTS HOODS BUFFETS CHICKENG ROASTERS HOTELS&RESORTS SHOPPING MALLS BURNERS CHARBROILERS UNIVERSITIES HOSPITALS FRYERS GRIDDLES SCHOOL CAFETERIAS FAST FOOD RESTAURANTS OVENS WOK KEBAB ETNIC FOOD RESTAURANTS GRILLS ISLE/WALL KITCHENS RESTAURANTS UNIVERSITTY PUBLIC BUILDINGS RESIDENCES ASSOCIATIONS RESTAURANTS COFFEE SHOPS DUCTS HOODS BUFFETS CHICKENG ROASTERS HOTELS&RESORTS SHOPPING MALLS BURNERS CHARBROILERS UNIVERSITIES HOSPITALS FRYERS GRIDDLES SCHOOL CAFETERIAS FAST FOOD RESTAURANTS OVENS WOK KEBAB ETNIC FOOD RESTAURANTS GRILLS ISLE/WALL KITCHENS RESTAURANTS UNIVERSITTY PUBLIC BUILDINGS RESIDENCES ASSOCIATIONS RESTAURANTS COFFEE SHOPS DUCTS HOODS BUFFETS CHICKENG ROASTERS HOTELS&RESORTS SHOPPING MALLS BURNERS CHARBROILERS UNIVERSITIES HOSPITALS FRYERS GRIDDLES SCHOOL CAFETERIES

SEVO Systems distribution is established in over 60 countries, on six continents.

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