HOCHIKI ®

THE WORLD'S FINEST FIRE DETECTION SYSTEMS SINCE 1918

SUPPRESSION

UNITED KINGDOM

USA

USA

MEXICO

MIDDLE EAST

JAPAN

TAIWAN

INDIA

THAILAND

SINGAPORE

INDONESIA

AUSTRALIA

FirePro. XTINGUISH™

PRODUCT BROCHURE

ABOUT US

Hochiki Corporation, a world leader in fire protection equipment, was founded in Japan in 1918. Since then, eighteen subsidiaries have been formed around the world, including manufacturing locations in Japan, the UK, and at Hochiki America Corporation in the United States.

Hochiki America has been manufacturing in Southern California since 1972 and is very proud of its state-of-the-art manufacturing facility in Buena Park, California. For over 45 years, Hochiki America has been a supplier of quality smoke detectors to the fire alarm industry. Many of their customers are well-recognized companies such as Simplex (over 20 years), Silent Knight (over 20 years), Radionics, Bosch, Potter, Napco, and Fike. These longstanding relationships are no coincidence - they are due to the fact that Hochiki offers the highest in quality workmanship at competitive pricing. Quality is "built in" using only the finest in raw materials and the most advanced automated testing and manufacturing equipment available anywhere.

Hochiki America's internal operating procedures are per ISO 9001, the highest and most recognized standard in the industry. And as required for the United States and other international markets, their products are listed and approved by recognized agencies such as Underwriters Laboratories and Factory Mutual.

With many companies moving the majority of their manufacturing offshore, it is worth noting that Hochiki America doubled its manufacturing capabilities in Southern California in 2007-2008. It increased its production staff by over 150% and added two new automated surface-mount printed circuit assembly lines to its operation. Hochiki believes that the secret to reliability is controlling the manufacturing process every step of the way; testing, testing and retesting everything it makes all the way through the production process.

Hochiki America adds even more value to its products by powering up and "burning-in" every device it makes before subjecting it to final acceptance testing. And Hochiki provides expert technical and after-market support and technical training to assure that its products are used properly and in a responsible way.

Hochiki created a fire suppression division in 2013 and has experienced tremendous success with their condensed aerosol and kitchen fire suppression systems, along with their high-sensitivity air-sampling smoke detection systems. Hochiki is constantly moving ahead and looking to the future; for you and your customers.

Why Hochiki America? Simply put, Hochiki America offers the most reliable and competitive fire alarm and fire suppression products available today. Make Hochiki America your choice for all of your fire alarm and fire suppression needs.

- No door fan test required
- Electrical and / or Thermal activation
- Installed in more than 110 countries around the world
- Modular system, easily expanded if needed

APPLICATIONS

Control Rooms

Electrical Sub-Stations

Electrical Panels and Cabinets

Sub-Floor / Above-Ceiling

Storage Containers / Trailers

Enclosed Machinery

Wind Turbines

Solar Inverters

Water Treatment Plants / Utilities

Marine / Railways

Warehouses

Cable Tunnels / CEVs

Heavy Equipment / Vehicles

More!

PROPERTY
More Effective Than Halon
More Effective Than CO2
Non-Corrosive, Non-Conductive

SAFE
Non-Toxic
Life Sustaining (No Oxygen Depletion)
Non-Pressurized
Fail Safe
Fully Automatic
Suitable for Class A, B and C Fires
Extremely Fast Extinguishing

ECOLOGICAL
Zero Ozone Depleting Potential
Zero Global Warming Potential
Negligible Atmospheric Lifetime
EPA SNAP Listed and Green Listing

ECONOMICAL
Minimizes Consequential Damage
No Mechanical Installation
Simple Design and Installation
Minimal Maintenance
Substantial Cost Savings Over Other Agents
UL Listed Service Life = 15 Years

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FirePro.
XTINGUISH™

FirePro® Xtinguish is an exciting and new "green" fire suppression product for total-flooding applications or any installation where a fire suppression system is needed to protect the contents of a space. FirePro® Xtinguish is non-toxic, with zero ozone depletion and global warming potential. It utilizes an aerosol-forming solid compound to extinguish fires by inhibiting the chemical chain reactions within the fire itself, breaking the chemical reaction of fire cleanly and efficiently. While being very powerful, the FirePro® Xtinguish system installation is uncomplicated and maintenance is minimal. FirePro® Xtinguish and the HCVR-3 and eLAN Releasing Fire Alarm Control Panels combine to produce a perfect extinguishing solution for offices, control rooms, wind turbines, warehouses, archives, banks, transformer/electrical rooms, and more.
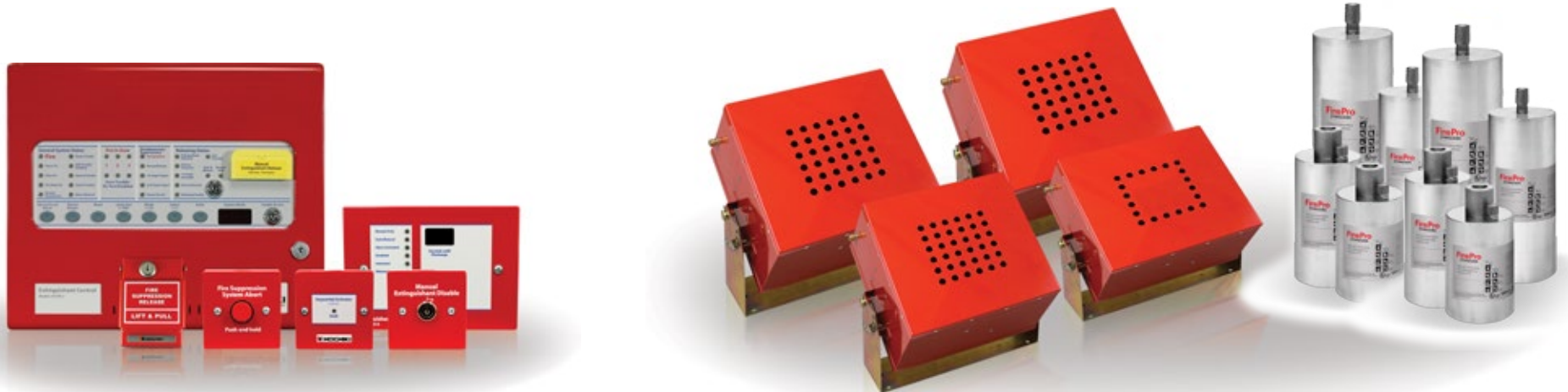
+ No oxygen depletion
+ UL 2775 Listed for Class A, B, C fires
+ Environmentally friendly
+ EPA SNAP listed

+ Minimal maintenance
+ Non-corrosive and non-conductive
+ Safe to handle
+ Easy installation

SIGNALING
UL LISTED

FM APPROVED

AEROSOL

An aerosol is defined as a 2-phased media consisting of solid particles suspended in a gas. FirePro® Xtinguish aerosol consists of Potassium-based particles, suspended in a gas carrier.

ACTIVATION PORTS

Each FirePro® Xtinguish unit comes with two types of activation ports (thermal and electrical) thus providing the engineering option to utilize one or more activation device depending on application.
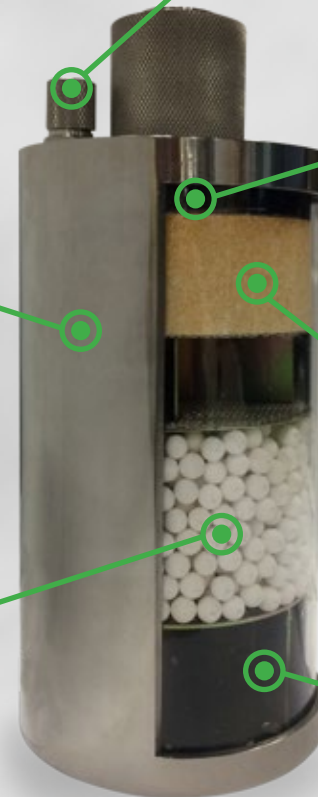
ELECTRICAL ACTUATOR

The electrical actuator is connected to a re-leasing control panel. When electrical energy is applied during alarm, the actuator initiates the transformation of the solid compound into a rapidly-expanding and highly effective fire suppression aerosol.

EXTERNAL UNIT HOUSING

Forms the outer shell of the unit and also accommodates the activation (electrical & thermal) ports. The housing of cylindrical units is made of stainless steel for complete protection against corrosion.

Note: The box type units are produced in both stainless steel and red coated mild steel.

FPC SOLID COMPOUND

The patented solid condensed aerosol-forming compound has a UL listed service life of 15 years.

NATURAL CERAMIC COOLANT

High quality alumina ceramic spheres act as both a cooling media (due to their high conductive nature) but also as a filter (any coarse aerosol particles shall be trapped within).

DISCHARGE PORT

Point from which aerosol exits the unit housing.

At the heart of the FirePro® Xtinguish system is the HCVR-3 Conventional Releasing Fire Alarm Control Panel. The HCVR-3 monitors and controls the entire system; detection, annunciation, and suppression. Combined with Hochiki's high-quality detectors and FirePro® Xtinguish, the HCVR-3 is a perfect solution for all of your fire suppression needs.

HCVR-3

CONVENTIONAL RELEASING FIRE ALARM CONTROL PANEL

STANDARD FEATURES

- UL Listed, FM Approved and CSFM listed
- Three conventional zones
- Any single zone or any combination of zones can be configured to release
- Fully programmable using simple menu options
- Simple, single board construction
- Installer-friendly
- Compatible with a wide range of detection devices
- Built-in manual release switch and external manual release circuit
- Built-in abort circuit
- Compatible with various releasing valves
- Configurable releasing delays up to 60 seconds in 5-second intervals
- Configurable releasing duration up to 5 minutes in 5-second intervals
- Releasing countdown timer displayed on the panel
- Supports up to seven HCVR-SDU or HCVR-AB
- Built-in relays for Fire, Trouble, Stage 1, Stage 2, Extract and Local Fire
- Available in red or gray

HCVR-SDU

STATUS DISPLAY UNIT

STANDARD FEATURES

- Remote status display for the HCVR-3 Releasing FACP
- UL Listed, FM Approved and CSFM listed
- Supervised four-wire connection
- Displays countdown timer prior to agent release
- Internal buzzer and trouble diagnosis indicators
- Optional keyswitch with Manual-Only and Automatic & Manual modes
- Available in red or gray

HCVR-AS

ABORT SWITCH

STANDARD FEATURES

> UL Listed, FM Approved and CSFM listed
> Used to abort the releasing operation
> Includes a back box for surface mount
> Available in red or gray

HCVR-DS

DISCONNECT SWITCH

STANDARD FEATURES

> UL Listed, FM Approved and CSFM listed
> Physical switch provides NFPA-compliant disconnect solution for releasing service
> Includes a back box for surface mount
> Available in red or gray

HCVR-SQA

SEQUENTIAL ACTIVATOR

STANDARD FEATURES

> UL Listed, FM Approved and CSFM listed
> Used to activate up to two FirePro Xtinguish aerosol generators
> Includes a back box for surface mount
> Fault LED is illuminated to indicate trouble conditions

HPS-DAK-SR

MANUAL PULL STATION FOR FIRE SUPPRESSION RELEASE

STANDARD FEATURES

> UL Listed, FM Approved and CSFM listed
> Physical switch provides NFPA-compliant disconnect solution for releasing service
> Includes a back box for surface mount
> Metal construction
> Enclosed switch with glass rod (included)
> Available in red or gray

FPC-1

FIRE DETECTION & EXTINGUISHANT CONTROLLER

STANDARD FEATURES

> Self-contained detection and activation module
> Can activate one or two Xtinguish aerosol generators
> LEDs indicate controller status
> Built-in fixed temperature / rate-of-rise heat detector
> Input for manual activation switch or linear heat cable
> Aerosol generator circuits are supervised
> Powered by four "AA" alkaline batteries
> Fast installation, no programming required
> For ancillary use only – not UL listed

FPC-2

FIRE PROTECTION CONTROLLER

STANDARD FEATURES

> Detection and activation controller
> Can activate up to four Xtinguish aerosol generators
> One input for linear heat cable, smoke detectors, or combination of both
> Buzzer activates during alarm or trouble conditions
> Reset and Buzzer Silence buttons on controller faceplate
> Two Form-C relays for Alarm and Trouble
> Requires external 24VDC power supply
> Easily interfaced to building fire alarm system
> Fast installation, no programming required
> For ancillary use only – not UL listed

FPC-4

EXTINGUISH CONTROL MODULE

STANDARD FEATURES

> Self-contained detection and activation module
> Can activate one or two Xtinguish aerosol generators
> Powered by one "AA" alkaline battery
> Input for linear heat cable or manual activation switch
> Fast installation, no programming required
> For ancillary use only – not UL listed

FPC-5

THERMAL ACTIVATION MODULE

STANDARD FEATURES

> Thermal activation solution for stand-alone generator applications
> Two versions; one with built-in bimetallic heat sensor and another with linear heat cable input
> Can be used on all generator models
> Powered by one CR2 lithium battery
> For ancillary use only – not UL listed

ELAN RS-H

ANALOG ADDRESSABLE FIRE ALARM RELEASING CONTROL PANEL

STANDARD FEATURES

> Analog addressable panel with single-hazard releasing
> 1 or 2 SLC loops
> 127 primary addresses per SLC
> 500 zones
> 2 notification appliance circuits
> 3 programmable relays
> Networkable, up to 64 panels
> 500 network-wide cause and effect logic statements
> Available in red or gray

BTA

BULB THERMAL ACTUATOR

STANDARD FEATURES

> Thermal activation solution for stand-alone generator applications
> 5 temperature ratings; 57°C, 68°C, 79°C, 93°C, 141°C, 182°C
> The liquid in the bulb expands when temperature increases. When operational temperature is reached the bulb bursts, activating the generator.
> Compatible with the FNX-100S, FNX-200S, FNX-500S, and all of the "-T" and "-TS" series of generators.
> No external power required
> For ancillary use only – not UL listed
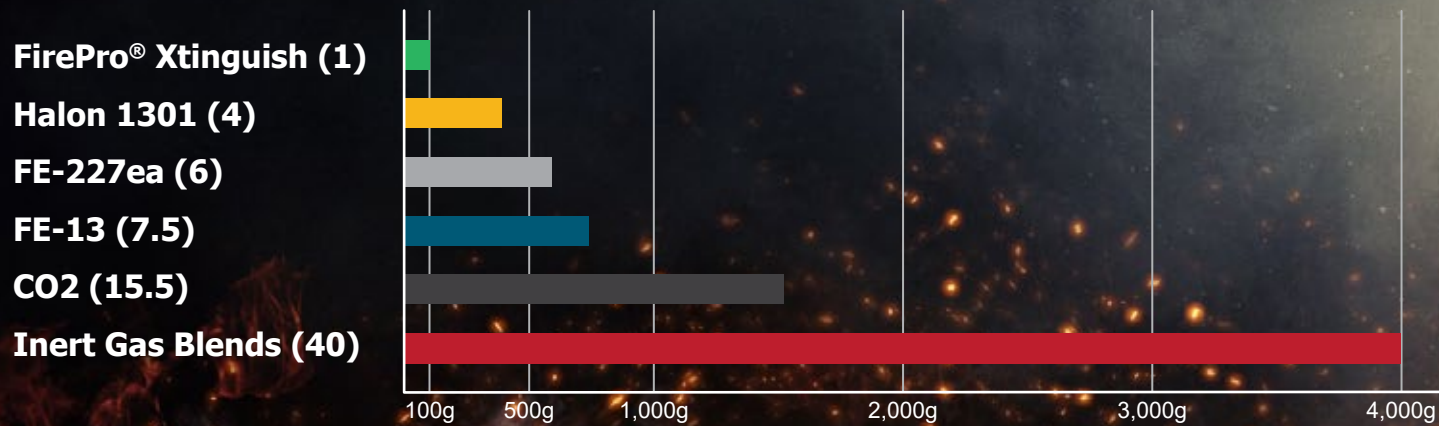
SIGNALING UL LISTED   FM APPROVED

FirePro® Xtinguish is UL Listed as a pre-engineered system. Applications are easy to design and install. No piping, pressurized tanks or cylinders, or difficult flow calculations are required. Simply choose the correct type and number of aerosol generators using simple design parameters.
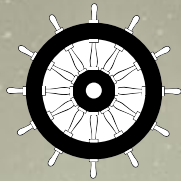
AEROSOL GENERATORS

20 GRAMS
40 GRAMS
80 GRAMS
100 GRAMS
200 GRAMS
500 GRAMS
1200 GRAMS
2000 GRAMS
3000 GRAMS
4200 GRAMS
5700 GRAMS

Comparison of the required quantity of FirePro® Xtinguish vs. traditional gaseous suppression agents. Greater economy of space will open up greater numbers of applications.

FirePro® Xtinguish (1)
Halon 1301 (4)
FE-227ea (6)
FE-13 (7.5)
CO2 (15.5)
Inert Gas Blends (40)

100g 500g 1,000g 2,000g 3,000g 4,000g

GENERATOR MODELS	FNX-20	FNX-40	FNX-80	FNX-100	FNX-200	FNX-500
TOTAL VOLUME COVERAGE (CUBIC FT/M)	6.35FT 0.18M	12.71FT 0.36M	25.77FT 0.73M	32.13FT 0.91M	64.62FT 1.83M	161.38FT 4.57M
WEIGHT (LBS/G)	0.68 LBS (308G)	1.34 LBS (607G)	1.92 LBS (870G)	3.02 LBS (1370G)	4.05 LBS (1837G)	7.36 LBS (3338G)
DIMENSION (HxD)	6.5"H x 1.2"D (165MM x 32MM)	5.5"H x 2.0"D (140MM x 51MM)	7.3"H x 2.0"D (185MM x 51MM)	6.1"H x 3.3"D (155MM x 84MM)	7.3"H x 3.3"D (185MM x 84MM)	10.2"H x 3.3"D (260MM x 84MM)

GENERATOR MODELS	FNX-1200	FNX-2000	FNX-3000	FNX-4200	FNX-5700
TOTAL VOLUME COVERAGE (CUBIC FT/M)	387.75FT 10.98M	646.61FT 18.31M	864.14FT 24.47M	1358.20FT 38.46M	1843.07FT 52.19M
WEIGHT (LBS/G)	24.03 LBS (10900G)	34.17 LBS (15500G)	35.93 LBS (16297G)	52.03 LBS (23600G)	58.20 LBS (26400G)
DIMENSION (HxWxL)	6.6"H x8.5"W x 11.8"L (167MM x 216MM) x 300MM)	7.3"H x 11.8"W x 11.8"L (185MM x 300MM x 300MM)	7.3"H x 11.8"W x 11.8"L (185MM x 300MM x 300MM)	11.8"H x 11.8"W x 11.8"L (300MM x 300MM x 300MM)	11.8"H x 11.8"W x 11.8"L (300MM x 300MM x 300MM)

Conventional extinguishing agents employ oxygen depletion, cooling or both to extinguish a fire. FirePro® Xtinguish inhibits the chain chemical reactions present in fire. By removing the flame free radicals, it extinguishes fire without depleting oxygen.
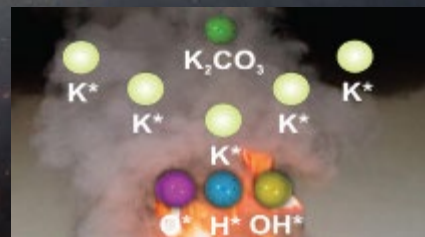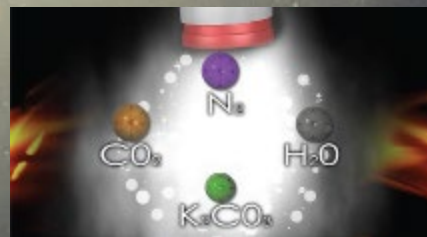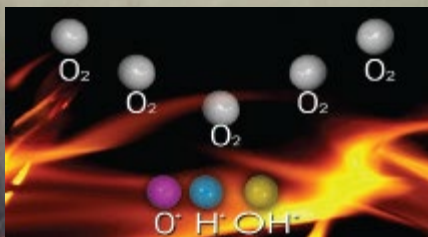
FireNET Vapor®

PROVIDING SOLUTIONS BEYOND TRADITIONAL SMOKE AND FIRE DETECTION

FireNET Vapor® detectors excel in area coverage and powerful performance and are suited to a host of applications – stand-alone or networked, smoke and even environmental monitoring – in the most demanding environments.

These state-of-the art detectors, built for flexibility and dependability, are found in power stations, telecommunication sites, mines, IT facilities, LCD fabs, semiconductor clean rooms, prisons, warehouses, cold storage rooms, harsh and hazardous areas, trains, historic buildings, museums and even in residences.
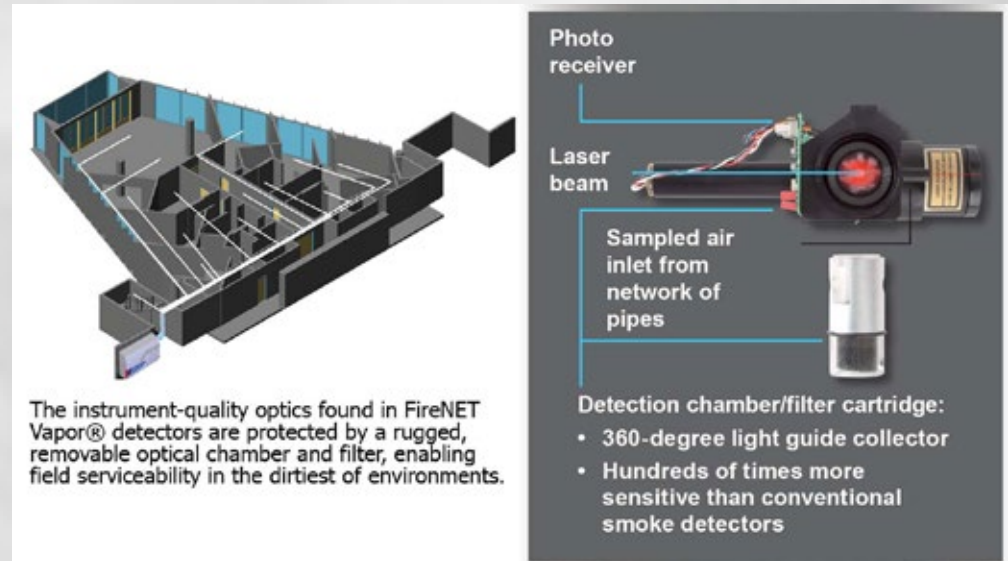
The FireNET Vapor® range provides powerful diagnostic information and communication with monitoring, programming and trending information of all detector functions fully accessible from virtually anywhere.

Approved worldwide and manufactured according to the strictest ISO 9001 quality control procedures, the FireNET Vapor® range includes both air-sampling point detectors and very high-sensitivity ASD systems.
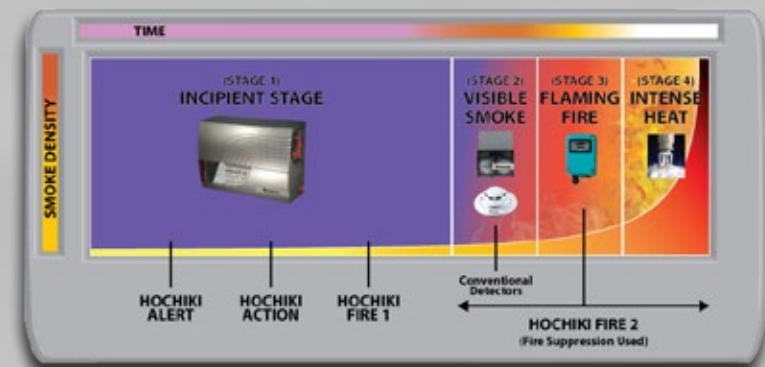
SIGNALING
UL LISTED

FM APPROVED

The FireNET Vapor® VPR series high-sensitivity ASDs are instrument-quality nephelometers collecting scattered laser light from smoke particles over a full 360-degree sweep. The resulting sensitivity is 0.0003% obs/ ft (0.001% obscuration/m), which is several hundred times more sensitive than conventional smoke detectors. This sensitivity, coupled with advanced processing and filtration, enables FireNET Vapor® VPR systems to be used in the world's most demanding applications and environments.

The instrument-quality optics found in FireNET Vapor® detectors are protected by a rugged, removable optical chamber and filter, enabling field serviceability in the dirtiest of environments.

Photo receiver

Laser beam

Sampled air inlet from network of pipes

Detection chamber/filter cartridge:
- 360-degree light guide collector
- Hundreds of times more sensitive than conventional smoke detectors

UNDERSTANDING TIME

The image shows the evolution of a fire on an overheating printed circuit board in a computer cabinet. The event progresses from releasing small invisible particles into a raging fire over a substantial period of time. The more time you have to react to an event, the less likely significant damage will occur, ensuring business continuity. The additional response time provided by early detection enables minor events to be investigated with minimal business disruption before fire can cause catastrophic loss.

TIME

SMOKE DENSITY

(STAGE 1) INCIPIENT STAGE

(STAGE 2) VISIBLE SMOKE

(STAGE 3) FLAMING FIRE

(STAGE 4) INTENSE HEAT

Conventional Detectors

HOCHIKI ALERT   HOCHIKI ACTION   HOCHIKI FIRE 1

HOCHIKI FIRE 2
(Fire Suppression Used)

SIGNALING
UL LISTED

FM APPROVED

WHEN EVERY SECOND COUNTS

When a fire strikes, very early warning high-sensitivity air-sampling smoke detection (ASD) is the only solution for protecting personnel and property. The FireNET Vapor® ASD actively draws air from the protected area through a network of rigid sampling pipes perforated with sampling holes along their length. This pneumatic system is powered by a 2,000 Pa aspirator fan that functions in open areas, very high-airflow areas, air-conditioned environments, and clean rooms, just to mention a few. Other air-sampling systems typically operate on a tenth of the FireNET Vapor® VPR's suction, which renders them ineffective in more challenging and difficult applications.

FIRENET VAPOR - VPR-1, VPR-4, VPR-6, and VPR-1P

The FireNET Vapor® VPR Series is your solution for early warning air-sampling smoke detection. From very small spaces to very large, very clean environments to very dirty, FireNET Vapor® can handle them all. When business continuity is critical, when maximum time is needed for evacuation and emergency management, when the environment is challenging FireNET Vapor® is the solution.

VPR-1

STANDARD FEATURES:
- 4 pipe air sampling
- 0.0003 - 6.10 %/ft obscuration (0.001 - 20 %/m)
- 4 Alarm Levels - Alert, Action, Fire 1, Fire 2
- 4 x 328ft (4 x 100m) sampling pipes
- Enhanced performance aspirator
- Ethernet TCP/IP
- Modbus over RS232 and RS485
- 5 relay outputs and expandable
- Optional 4 to 20mA analog outputs and relay cards
- Area coverage of up to 21,500 ft2 (2000 m2)

VPR-4 / VPR-6

STANDARD FEATURES:
- 4 or 6 pipe addressable air sampling
- 0.0003 - 6.10 %/ft obscuration (0.001 - 20 %/m)
- 4 Alarm Levels - Alert, Action, Fire 1, Fire 2
- 4 or 6 x 328ft (4 x 100m) sampling pipes
- Enhanced performance aspirator
- Ethernet TCP/IP
- Modbus over RS232 and RS485
- 5 relay outputs and expandable
- Optional 4 to 20mA analog outputs and relay cards
- Area coverage of up to 21,500 ft2 (2000 m2)

VPR-1P

STANDARD FEATURES:
- Single Zone
- Dual Pipe Air Sampling
- 0.0003 - 6.10 %/ft obscuration (0.001 - 20 %/m)
- 4 Alarm Levels - Alert, Action, Fire 1, Fire 2
- 2 x 328ft (2 x 100m) sampling pipes
- Enhanced performance aspirator
- Ethernet TCP/IP
- RS232 and RS485 Modbus interface for programming
- 5 relay outputs
- Area coverage of up to 9,150 ft2 (850 m2)

WHEN EXACT LOCATION IS CRUCIAL

Standard air-sampling systems are well known for their early warning capabilities. However, in certain applications, it is critical to precisely locate the source of the incident. Where the location is critical and a visual search is impossible to perform quickly, FireNET Vapor®'s unique addressable air-sampling technology provides a powerful solution. The FireNET Vapor® VPR-15 uses unique microbore technology that can monitor up to 15 individual, addressable sampling points. Microbore sampling tubes are simple, flexible and unobtrusive to install, providing a very cost-effective solution for air-sampling detection with the integrity of a continuous run of sampling tube.

FIRENET VAPOR - VPR-15

STANDARD FEATURES:
- 0.24 in (6 mm) flexible air-sampling pipe
- Rapid scan of inlets with rotary selector valve
- High-sensitivity laser detection
- 0.0003% to 6.10% obs/ft (0.001% to 20% obscuration/m)
- 15 pipes, 15 areas
- 4 alarms - Alert, Action, Fire 1, Fire 2 per pipe
- Powerful suction rotary vane vacuum pump
- Large, clear display panel and optional RDUs
- TCP/IP Ethernet interface
- Remote monitoring support
- RS232 and RS485 Modbus
- Optional 4-20 mA output module and relay modules
- 24 VDC operation (standard)

AVENGER

AVENGER K™
&
AVENGER FLEX™

RESTAURANT
FIRE SUPPRESSION
SYSTEM

UL LISTED · SIGNALING

FM APPROVED

AVENGER K™

AVENGER offers two systems to meet the industry's varying needs. With the AVENGER K™ Restaurant Fire Suppression System you get appliance-specific coverage that typically offers lower initial cost. The AK system is ideal for uses where appliance location is fixed such as in fast food chains, casual dining, cruise ships and school cafeterias.

UL LISTED

AVENGER FLEX™

The AVENGER FLEX™ Restaurant Fire Suppression System adds greater flexibility by letting you reconfigure a kitchen or move appliances without moving nozzles. Because of its adaptability, this system is the most cost effective choice over the life of the system. The AF system was designed with fine dining, culinary schools, military facilities, hotels and hospitals in mind.

UL LISTED
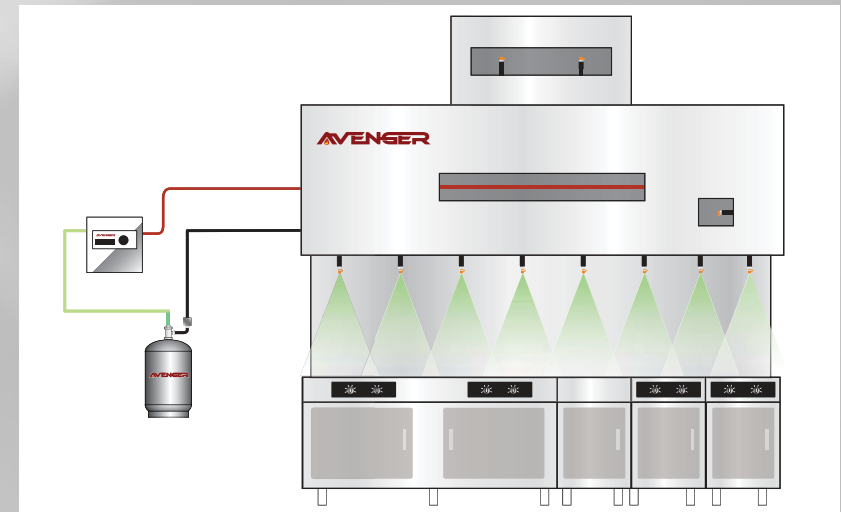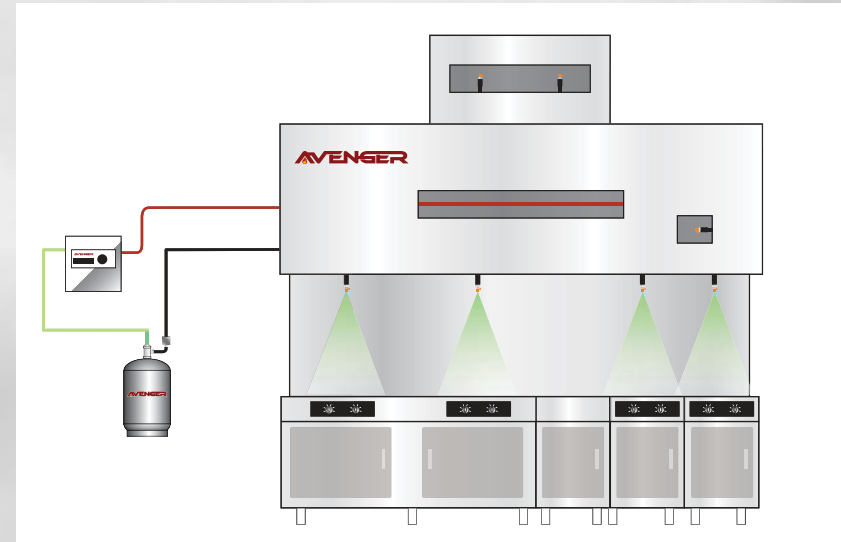
DETECTION　　**ACTUATION**　　**DISCHARGE**

SIGNALING UL LISTED　FM APPROVED

AVENGER SYSTEM COMPONENT DESCRIPTION

GENERAL

The AVENGER K™ & AVENGER FLEX™ Systems are pre-engineered, wet chemical, stored-pressure type systems with a fixed nozzle agent distribution network. The uncomplicated nature of the AVENGER system virtually eliminates design & installation errors. AVENGER is listed by Underwriter's Laboratories, Inc. and is tested to the UL Standard 300.

The AVENGER system shall be designed, installed and maintained in accordance with the AVENGER technical manual HA-06-362, NFPA 17A, NFPA 96, and local codes and ordinances by an authorized AVENGER Systems distributor using factory trained personnel.
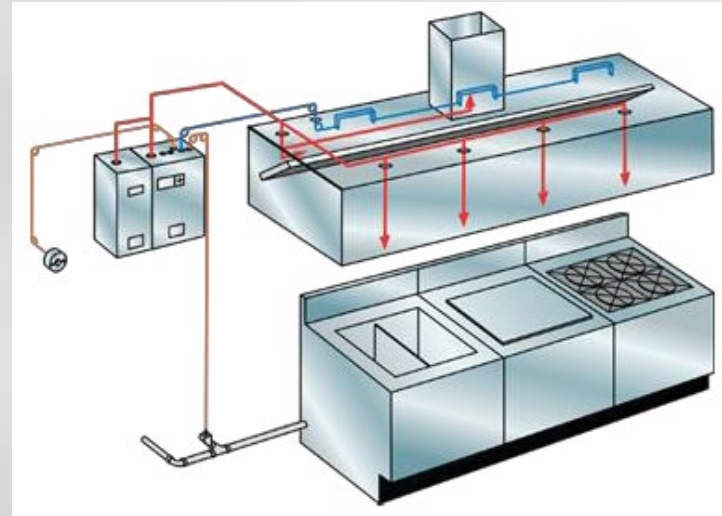
AGENT CYLINDERS: (2.75, 3.75, 4.75 & 6 GALLONS)

The agent cylinders are mild steel DOT 4BW240 specification cylinders, tested to 480 PSI (3309 kPa). The agent cylinder/ discharge valve assembly is factory charged with AVENGER liquid fire suppressant, a potassium acetate-based solution that suppresses cooking grease fires both through saponification and cooling. The cylinders are pressurized to 240 PSI (1655 kPa).

STAINLESS STEEL ENCLOSURE

For our modern, fashionable world, AVENGER decided to add some beauty to our Restaurant Fire Suppression System by providing stainless steel cylinders & releasing module enclosures. The pressure gauges for the nitrogen and agent cylinders are visible without removing the front cover of the enclosure.

SIGNALING
UL LISTED

FM APPROVED

ADVANCED RELEASE MECHANISM MODULES

The release mechanism is a spring-loaded mechanical/pneumatic type, capable of actuating from one to ten agent cylinder/valve assemblies with just one nitrogen cylinder. It is operated either automatically by the detection network or manually by a remote manual pull station. AVENGER offers two types of releasing modules:

A.) MECHANICAL RELEASE MODULE (MRM)

The MRM is a spring-loaded type using a mechanical input and electrical, mechanical, and pneumatic outputs. The MRM enclosure has a system status indicator and a window to observe the nitrogen cylinder pressure.

B.) 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 tubing, and end of line fitting. The tubing is pressurized through a small "accumulator" inside the enclosure and routed throughout the hazard area.

AVENGER OFFERS TWO OPTIONS FOR DETECTION

A.) 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 segments.

B.) LINEAR PNEUMATIC DETECTION

The linear pneumatic detection system utilizes pneumatic detection tubing. 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.

DISCHARGE NOZZLES

Specially-designed discharge nozzles are made of chrome-plated brass, and shall consist of a one piece tip/body, strainer and blow-off cap.

HOCHIKI
THE WORLD'S FINEST FIRE DETECTION SYSTEMS SINCE 1918

SUPPRESSION