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www.kfiremall.com



Since 1961

With 64 years of experience and knowledge, Kfire assures you to provide the best quality

Company History

- | | | | |
|----------|--|----------|--|
| 1961. 11 | Launched as Korea Fire Materials Corporation (151, Chilseong-dong 1-ga, Buk-gu, Daegu) to manufacture firefighting equipment | 1995. 01 | Establishment of Daegu sales office (283-3 Sinccheon 3-dong, Dong-gu, Daegu) |
| 1970. 01 | Factory relocation (365 Sinam-dong, Dong-gu, Daegu) | 1996. 07 | Acquisition of automatic fire extinguisher type approval and production (Type approval: No. 96-07-567) |
| 1975. 03 | Factory expansion relocation (680-1 Geomdan-dong, Buk-gu, Daegu) | 1996. 08 | Acquisition and production of gas product manufacturing permits |
| 1976. 05 | Acquired permission for Gyeongsangbuk-do Fire Equipment Company No. 1 | 1997. 02 | Acquisition of automatic fire extinguisher type approval and production (Type approval: No. 97-02-64) |
| 1978. 08 | Change of name to Hankook Fire Fighting Equipments Co.,Ltd | 2000. 10 | Acquired ISO 9002 certification |
| 1979. 11 | Relocation to the current factory (1155, Jungri-dong, Seo-gu, Daegu) | 2004. 03 | Development of a gas leak alarm and blocking device |
| 1986. 01 | Establishment of a Seoul sales office(984 Siheung Industrial Goods Distribution Center, Siheung-dong, Geumcheon-gu, Seoul) | 2004. 04 | SeoDaegu Tax Office Director Awarded Outstanding Tax Payment |
| 1990. 01 | Transition to a corporate company | 2004. 05 | Development of Home Network-linked Automatic Fire Extinguisher |
| 1991. 03 | Establishment of Gyeongsan Factory (Jain-myeon, Gyeongsan-si, Gyeongsangbuk-do) | 2005. 10 | Certification of Venture Business (No. 051323032-1-0265) |
| 1994. 11 | Establishment of a Goonwe factory(421-21, Suseori, Gunwi-eup, Gunwi-gun, Gyeongsangbuk-do) | 2005. 12 | INNO-BIZ Corporation Certification (No. 5031-0789) |
| | | 2006. 09 | Selection of Technology Innovation Task by Small and Medium Business Administration |
| | | 2006. 09 | Establishment of a research institute affiliated with industry-academic cooperation companies |



| | | | |
|----------|---|----------|---|
| 2007. 10 | Daegu City 3030 Company Selection | 2022. 10 | Germany's iENA2022 Awarded Gold Medal in Industrial Sector |
| 2008. 06 | Commissioner of Fire Prevention Commendation | | – a stick-type fire extinguisher |
| 2009. 01 | Construction of Dalseong 2nd Industrial Complex 3rd Plant | 2022. 10 | Germany's iENA2022 Awarded for Industry Award |
| 2010. 03 | Director of National Tax Service Awarded Outstanding Tax Payment Commendation | | – Electric vehicle fire suppression system |
| 2010. 06 | Selection of Daegu Star Company | 2023. 06 | Participation in the development of gas hydrate fire extinguishing coal and fire suppression technology to cope with the difficult accessible fire(2023.06 ~ 2027.12) |
| 2010. 11 | Awarded a commendation from the Minister of Public Administration and Security | | |
| 2011. 07 | Industry-academic cooperation at Keimyung University | 2024. 10 | – Intellectual Property Management Certification |
| 2012. 12 | Certification of Innobiz Corporation | 2024. 11 | – Daegu Metropolitan City SME Grand Prize |
| 2014. 05 | Certification of venture companies | 2025. 03 | – Presidential Citation |
| 2019. 11 | Intellectual property management certification | | |
| 2021. 08 | Awarded the Fire Industry Grand Prize | | |
| 2021. 11 | Completion of National Industrial Complex Plant 4 | | |
| 2022. 04 | ESS, Research and development of fire safety technology for hydrogen facilities | | |
| | – Participation in the development of fire suppression technology and response manual for mobile lithium-ion ESS transported and utilized by vehicle(2022.04.01 ~ 2024.12.31) | | |



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We will be your safety protection company so that anyone can enjoy a safe and convenient life.



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AUTOMATIC SYSTEMS

Automatic Fire Extinguishing System

01



ALWAYS READY FOR DANGER
EVERYONE'S SAFETY

Uni Home

Fire Extinguishing Smart Hood
System

Residential Automatic Kitchen
Fire Extinguishing System
(Hybrid Type)

Gas Circuit Breaker

Ventilation Sensor

Electric Circuit Breaker

Commercial Kitchen Automatic
Fire Extinguishing System

CNC Automatic Fire
Extinguishing System

AND HOPE'S

Portable Kitchen Automatic Fire Extinguishing System

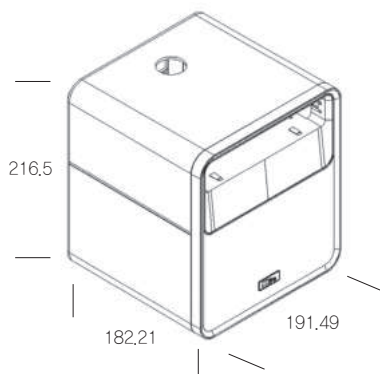
Uni Home

— A portable automatic fire extinguishing system that can be installed in kitchens without a hood



Product Features

| | |
|---------------------------------------|---|
| Installable without a hood | Can be installed in kitchens or auxiliary kitchens without upper cabinets or a hood |
| Wireless control function | Wired/wireless electric shut-off allows for induction control |
| System interlocking | Can be linked with the automatic fire extinguishing system for air conditioners |
| Air conditioner shut-off interlocking | Can wirelessly shut off the air conditioner power |
| Extinguishing agent selection | Can use various extinguishing agents such as enhanced liquid or CO ₂ |



Product Specifications

| | |
|-----------------------------------|-----------------------------------|
| Dimensions (W×D×H) | 191.49 mm × 182.21 mm × 216.50 mm |
| Spray Pressure | 1.8 Mpa |
| Operating Temperature Range | -10°C ~ 40°C |
| 1st Sensor Activation Temperature | 95°C |
| 2nd Sensor Activation Temperature | 135°C |
| Spray Nozzle Discharge Time | 12seconds |
| Spray Nozzle Discharge Angle | 80° |
| Power Supply | DC 12V or AC 220V |
| Battery Capacity | 300 mAh |
| Extinguishing Agent | Enhanced Liquid |

Fire Extinguishing Smart Hood System



Hood & Gas, Electric Stove & Automatic Fire Extinguisher Automatic Interlocking IoT Products

(Hood and gas and electric range companies can be interlocked even if they are different)

- When cooking gas and electric stove, the hood automatically operates and stops when cooking is finished, automatically operating the hood operation that is easy to miss to block cooking fumes, which are the main cause of women's lung cancer.
- In addition, the range hood linked to the automatic fire extinguisher automatically stops both inhalations in case of fire to prevent secondary fires inside the hood and in the sink.

※ **Kfire éco** works with the "Kitchen Automatic Fire Extinguishing Device" to fully automatically control the hood even on the cooktop of the gas and electric range.

Kfire éco Chimney Type



AC motor



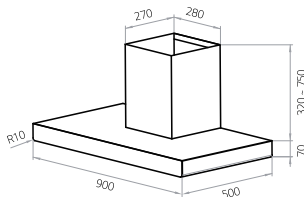
900



Touch switch



All-in-one light



| | | | | | | | |
|---------------|-----------------|-----------|------------------------|--------|------------|---------------------|----------|
| Mainmaterials | Stainless steel | Sound(dB) | 55/52/46 | Light | LED lamp | Power(W) | 110 |
| Air volume | 520/400/300 | Filter | Aluminum Triple Filter | Switch | Touch Type | Motor Specification | AC Motor |

Kfire éco Standard Type



AC motor



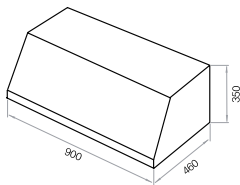
900



Touch switch



All-in-one light



| | |
|---------------------|------------------------|
| Mainmaterials | Stainless steel |
| Air volume | 520/400/300 |
| Sound(dB) | 55/52/46 |
| Filter | Aluminum Triple Filter |
| Light | LED lamp |
| Switch | Touch Type |
| Power(W) | 110 |
| Motor Specification | AC Motor |

Position can be changed according to site conditions as long as it is within 4m from the gas outlet
For LNG: within 0,3m from the ceiling

Gas Detection Part (LNG)

AC 220V independent power source

Switchboard

electric outlet

Electric Cut Off Device

PVC Corn Sleeve

ø16 Conduit

Gas Breaker

Fusecock

electric outlet

ø16 Conduit electric cable

Hooded power sockets (two sockets or more)

PVC Corn Sleeve

For LNG

square BOX (50×100)

Fusecock

front view

side view

- Position the outlet near the center of the gas stove so that it can effectively fight fires in the relevant protection area
- The fire extinguisher filling agent is a dry chemical powder or a reinforced fire extinguishing agent with a protection area of 0.4m² or more.
- Conduit
 - Area with retaining wall filling: CD pipe
 - Area with masonry filling: HI-VE pipe or CD pipe + support
 - Area with finishing materials such as plaster boards: HI-VE pipes or CD
- For masonry areas, apply a square box
- Drilling of holes to install outlets or detectors is to be conducted by the stove hood manufacturer.

Residential Automatic Kitchen Fire Extinguishing System (HYBRID)

자소 23-22-1, 23-22-2, 23-25, 24-6, 24-5, 23-11-1, 24-8, 24-9, 23-28, 24-38, 24-40, 24-33



Components and Specifications

Fire Extinguisher HKF-910



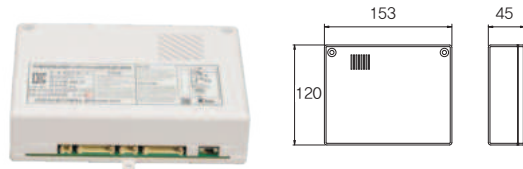
| | |
|-----------------|---|
| Dimension (mm) | 150 (W) × 164 (H) |
| Capacity (ℓ) | 0.8 |
| Weight (g) | 1900 |
| Charging Gas | N2 |
| Main Ingredient | Potassium Acetate(CH ₃ COOK) |

Controller KAR-CP-FO-22-1



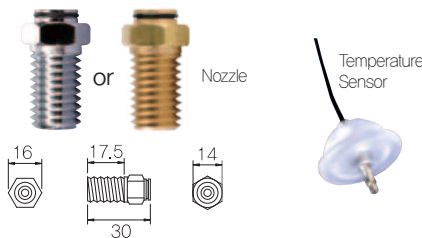
| | |
|----------------|---|
| Rated voltage | DC 12V |
| Dimension (mm) | KAR-CP-FO-22-1 : 129(W) X 30(H) X 20(D) |
| Weight (g) | 39 |

Control Box KAR-MC2-22-1



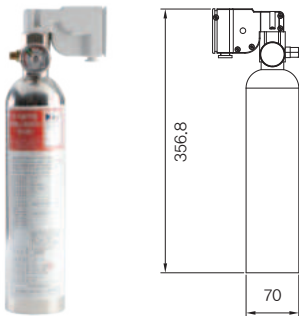
| | |
|-------------|-------------------------|
| Size (mm) | 153(W) × 120(H) × 45(D) |
| Weight (Kg) | 0.32 |

Nozzle & Temperature Sensing Part HKT-300/HKN-200



| | |
|-------------------|--|
| Primary Sensing | Nominal Working Temperature : 95°C |
| Secondary Sensing | Nominal Working Temperature : 135°C |
| Spray Nozzle | Discharging Time : 12seconds Discharging Angle : 80° |
| | Standard Type Protection Space : 695mm × 695mm |
| | Effective Installation Height : 500~700mm |
| | Wide Type Protection Space : 850mm × 850mm |
| | Effective Installation Height : 680~780mm |

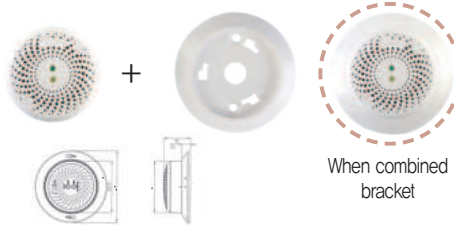
Fire Extinguisher KFF-910



| | |
|-----------------|---|
| Size (mm) | 70 (W) × 356.8 (H) |
| Capacity (ℓ) | 0.8 |
| Weight (kg) | 1.88 |
| Main Ingredient | Potassium Acetate(CH ₃ COOK) |

Gas Detection 탐지22-4, 23-1

※ Caution - Test gas should be used when inspecting the gas detection part.

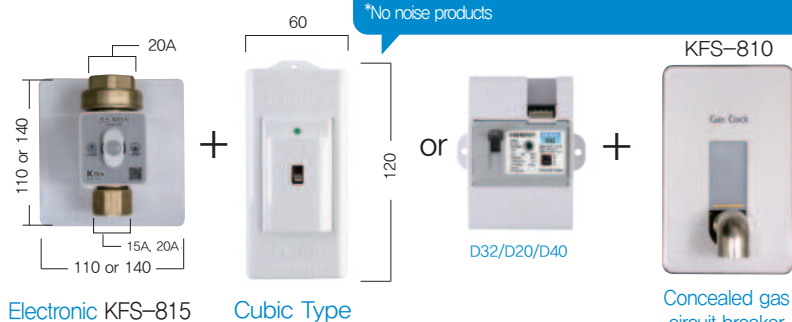


| | |
|------------------|--------------|
| Rated Voltage | DC 12V |
| Applicable Gases | LNG |
| Dimension (mm) | 61 ∅ × 32(D) |
| Weight (g) | 60 |

Gas & Electric Shut-off Device

*DC type (operates with battery power in case of power failure!)

*No noise products



Electronic KFS-815

Cubic Type

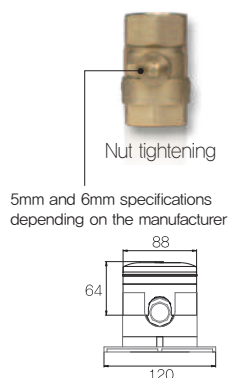
Concealed gas circuit breaker

Gas Circuit Breaker

KGS Korea Gas Stabilization Corporation Qualified Product

Mechanical Gas Circuit Breaker

Circular gas circuit breaker KFS-800

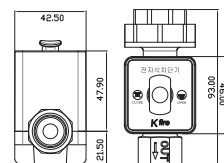
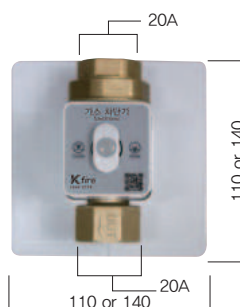


Gas Circuit Breaker

KFS-815

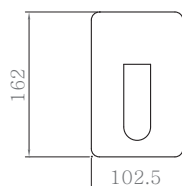


HKS-820



Embedded Gas Circuit Breaker

KFS-810



Integrated Gas Circuit Breaker

Touch type KFS-300



KGS Korea Gas Stabilization Corporation Qualified Product

Ventilation Sensor

Automatically detects and ventilates odors or gases generated during cooking.

Detachable ventilation sensor HKVOC-100

Detector HKV-100



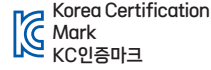
Control unit HKP-100



| | |
|----------------------------|---|
| Type | Detachable Ventilation Sensor |
| Model | HLVOC-100 |
| Power | AC 220V/60Hz |
| Sensing gas | Alcohol, carbon monoxide, carbon dioxide, cigarette smoke, ammonia, various smells, etc |
| Power consumption | 1W |
| Usage temperature | -10~50°C |
| Interlocking | Range Hood or Ventilation Fan |
| LED display | Blue LED-Power, Red LED-Relay operation |
| Installation | Kitchen in the house |
| Initial Stabilization Time | 3Minutes |
| Operating concentration | Approximately 20 ppm based on LNG |

Electric Circuit Breaker

Cubic Type



HA02024-22002B

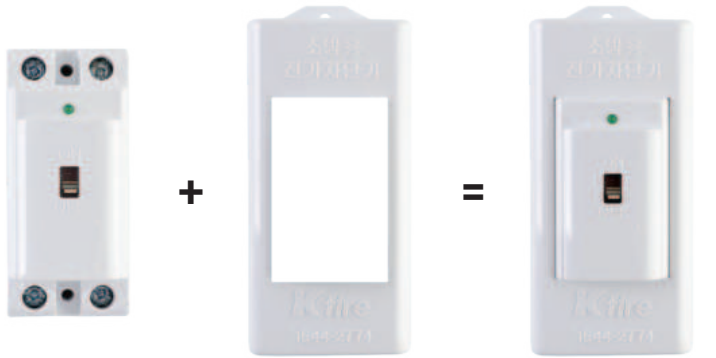
Rated Voltage AC220V / 60

Rated Current 16A

Operative pressure DC 12V

*DC type (operates with spare battery in case of power failure!)

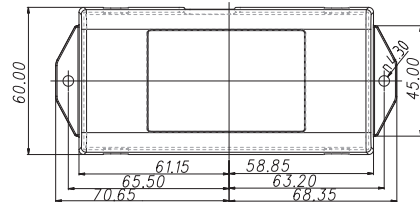
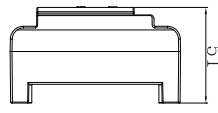
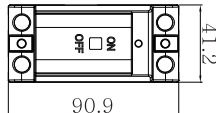
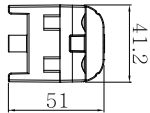
*No noise products



Breaker

Breaker Cover

Circuit Breaker and Cover Combined

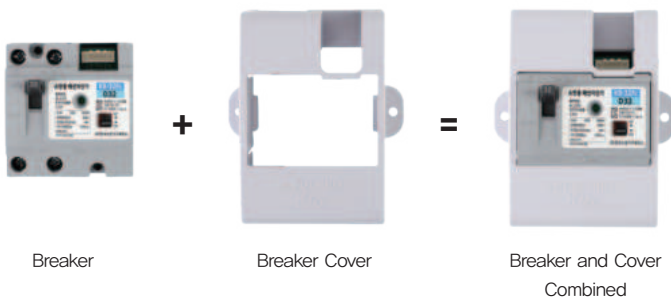


Electric Circuit Breaker (Large current type)

Wiring Circuit Breaker



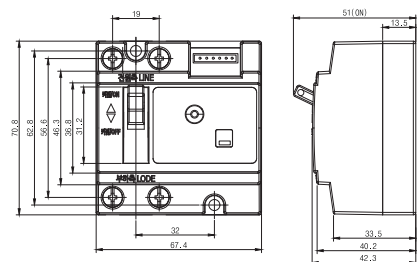
| Name | Wiring circuit breaker (for housing) | | | |
|---------------|--------------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Type Approval | HH05017-21079B | HH05017-21079B | HH05017-23089A | HH05017-23089A |
| Model | KB-35Fc D20 | KB-35Fc D32 | KB-40Pc D40 | KB-52Fc D40 |
| Rated Voltage | AC 220V | AC 220V | AC 220V | AC 220V |
| Rated Current | 20A | 32A | 40A | 50A |
| Phase | 2Phase | 2Phase | 2Phase | 2Phase |
| Weight | 160g | 160g | 160g | 160g |
| Display | Green LED switch on | Green LED switch on | Green LED switch on | Green LED switch on |
| Installation | Bracket or sole wall fixation | Bracket or sole wall fixation | Bracket or sole wall fixation | Bracket or sole wall fixation |
| PCB | 2Layer/FR4 | 2Layer/FR4 | 2Layer/FR4 | 2Layer/FR4 |
| Size | 67(W)X50(H)X70(D) | 67(W)X50(H)X70(D) | 67(W)X50(H)X70(D) | 67(W)X50(H)X70(D) |
| Bracket Size | 98(W)X50(H)X112(D) | 98(W)X50(H)X112(D) | 120.8(W)X75.17(H)X144.47(D) | 120.8(W)X75.17(H)X144.47(D) |



Breaker

Breaker Cover

Breaker and Cover Combined



Commercial Kitchen Automatic Fire Extinguishing System

Hybrid Hybrid Method: A system that enables control of both electric ranges and gas cooktops.

KISEN

KISEN® is a commercial kitchen automatic fire extinguishing system designed to protect against fires that may occur during commercial cooking activities.



- The KISEN® system can be applied to five types of cooking equipment: fryer, griddle, range, wok, and gas broiler.
- The KISEN® system detects fire using a temperature sensor. If the temperature exceeds the set threshold, it sends a fire alarm. Then, the extinguishing agent stored in the extinguisher is discharged evenly to the protected area around the fire detection point, suppressing the fire and preventing it from spreading.



System Operation Process

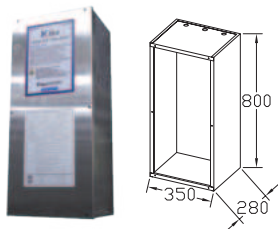
1. Fire occurs
2. Detects fire at the set temperature
3. Control unit transmits fire alarm signal
4. Gas (electric) valve shuts off—activates extinguisher's motor head
5. Discharges extinguishing agent → begins fire suppression
6. Fire is suppressed by discharge nozzles, depending on the position (inside/outside the kitchen facility)

Commercial Kitchen Automatic Fire Extinguishing System

Hybrid A system that enables control of both electric ranges and gas cooktops.

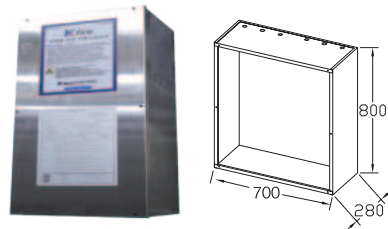
KISEN System Configuration

Cabinet-KN01



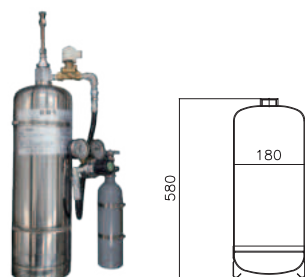
| | |
|------------------------------|-----------------|
| Material | Stainless Steel |
| Size | 800×280×350(mm) |
| Extinguishing Agent Capacity | 1 bottle (12L) |

Cabinet-KN02



| | |
|------------------------------|-----------------|
| Material | Stainless Steel |
| Size | 800×280×700(mm) |
| Extinguishing Agent Capacity | 2 bottle (24L) |

Fire Extinguishing Unit



| | |
|-----------------------------|---|
| Material | Stainless Steel |
| Size | Ø 180 × 580mm |
| Capacity | 13L(Enhanced liquid agent 12L) |
| Pressurization Method | Nitrogen (N ₂) pressurization |
| Charging Pressure | 100kg/cm ² |
| Operating Pressure | 8kg/cm ² |
| Activation Method | Activated by detector or manual switch, pressurized with nitrogen |
| Main Extinguishing Agent | Enhanced liquid agent |
| Discharge Time | Approx. 30seconds |
| Operating Temperature Range | 0°C~50°C |

Temperature Sensor KT100



| | |
|---------------------------|--------------------|
| Detection Method | Thermistor type |
| 1st Detection Temperature | 100°C (adjustable) |
| 2nd Detection Temperature | 130°C (adjustable) |
| Operating Range | 0~300°C |

- 1st Fire Detection Temperature (preliminary fire temperature): This is the stage before an actual fire occurs. When the temperature detected by the sensor rises above the normal level and reaches the preset temperature (100° C), the system issues a warning.
- 2nd Fire Detection Temperature (actual fire temperature): When the temperature reaches the preset level (130° C), it indicates that an actual fire has occurred, such as ignition of combustibles (appearance of flames), or a situation where ignition is imminent due to high temperature.

Hybrid Type Gas/Electric Shut-off Unit

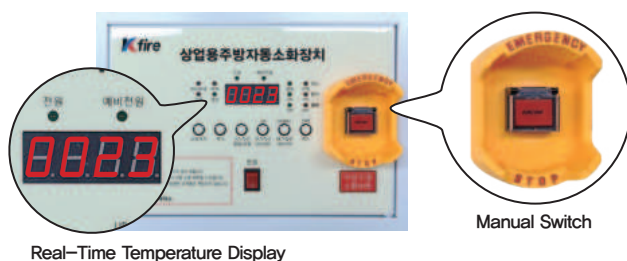


+



Simultaneous control of gas cooktop and electric induction is possible

Receiver Unit



| | |
|-----------------------|---|
| Setting Range | Up to 6 temperature sensors can be set |
| Installation Capacity | Can use up to 2 extinguishing cylinders / Nozzle calculated for discharge amount (15kg) / 1 gas shut-off valve, 1 electric shut-off device used |
| Size | 300×210×75(mm) |
| Communication | 485 and contact available |

- In the case of the receiver unit, the LED indicators, alarms, buzzers, and flashes intuitively inform the user of the current status of each protected zone via the FND display. Users can operate buttons to acknowledge or reset alarms and control the opening and closing of the gas shut-off valve.

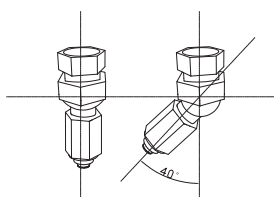
Nozzle



| Nozzle No | K01 | K02 | K03 | K04 | K05 |
|----------------------|-----------------------------|---------|-------|-------|-----------------------|
| Applicable Equipment | Duct | Plenumt | Fryer | Range | Wok, Broiler, Griddle |
| Discharge Amount | 3.2kg | 1.8kg | 2.5kg | 3.1kg | 2.5kg |
| Material | Copper Alloy/Chrome Plating | | | | |

- Cooking equipment – This includes all equipment used in commercial kitchens that uses fuel, such as fryers, griddles, ranges, woks, and gas broilers.
- Hood – Refers to the part of the exhaust system that collects smoke and steam generated during cooking and sends it out through the exhaust duct.
- Duct – Refers to the sealed pipe connected to the exhaust equipment that allows smoke and steam generated during cooking to be vented outside.
- Plenum – Refers to the space between the duct and the hood filter, or sometimes the inside of the hood without a filter.
- Grease – While cooking, oils and fats can vaporize and adhere to surfaces as small particles in the air, accumulating on walls, ducts, and hoods. Since grease is one of the main causes of fire spread, facility users must remove accumulated grease regularly as a fire prevention measure.

Swivel Adapter



- A swivel adapter can be added to the nozzle, allowing adjustment up to a maximum angle of 40° as shown in the illustration, so the angle can be adjusted according to the position of the cooking equipment.

Obtained KFI Certification



Enforcement Decree of the Act on Installation and Management of Firefighting Facilities

Requirement to Install Commercial Kitchen Automatic Fire Extinguishing Systems

- General restaurants located within large shopping malls as defined in Article 2, Subparagraph 3 of the Distribution Industry Development Act
- Group catering facilities as defined in Article 2, Subparagraph 12 of the Food Sanitation Act

Distribution Industry Development Act

'Large-scale retail store' refers to a cluster of stores that meet all of the following conditions, as specified in a separate table:

- Stores that are installed within one or more interconnected buildings as defined by Presidential Decree, either as a single unit or divided into multiple units
- Stores that are operated continuously
- The total floor area of the stores is 3,000 square meters or more

Food Sanitation Act

'Group Catering Facility' refers to a food service facility that does not operate for profit, but continuously provides food to a specified large number of people, and falls under any of the following categories as designated by Presidential Decree:

- Dormitory
- School, kindergarten, daycare center
- Hospital
- Social welfare facility as defined in Article 2, Subparagraph 4 of the Social Welfare Services Act
- Industrial establishment
- National or local government and other public institutions as defined in Article 4, Paragraph 1 of the Act on the Management of Public Institutions
- Other similar institutions

Enforcement Decree of the Food Sanitation Act

Article 2 (Scope of Group Catering Facilities)

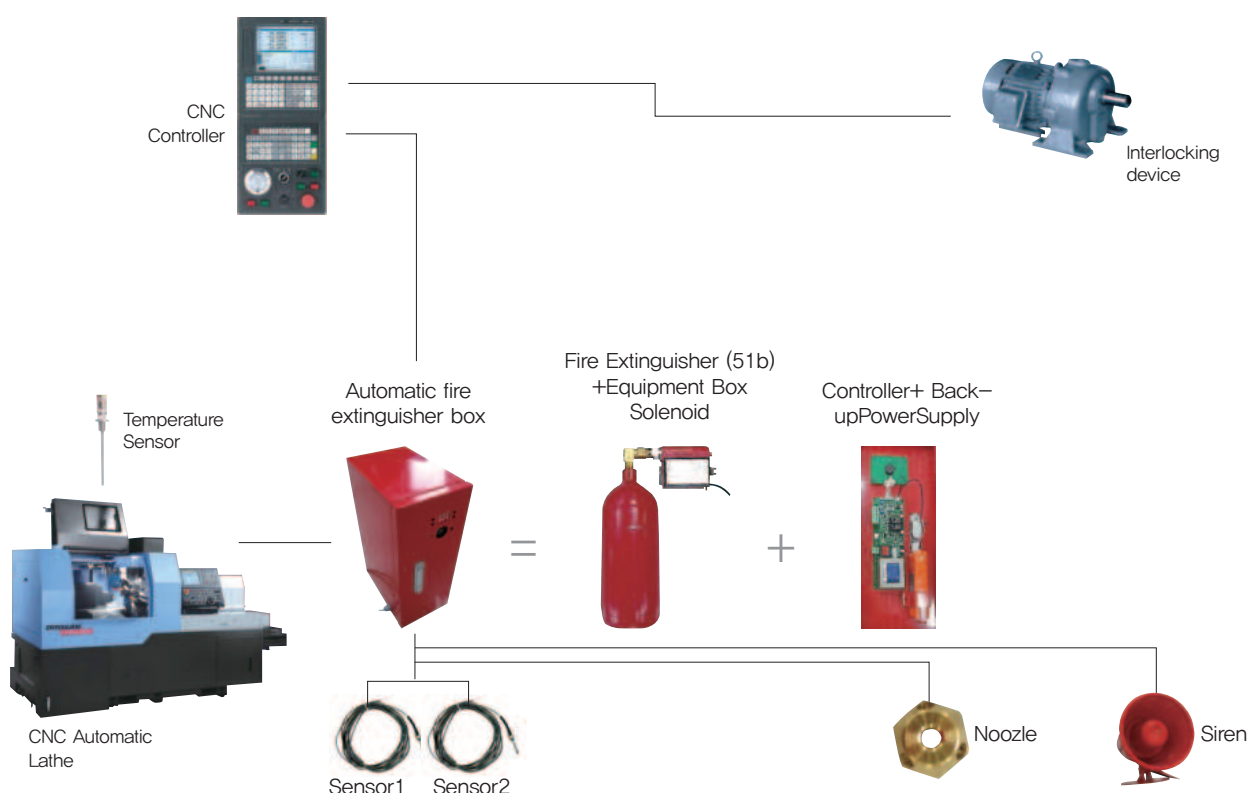
A group catering facility as defined in Article 2, Subparagraph 12 of the Food Sanitation Act refers to a food service facility that provides meals to 50 or more people at a time.

CNC Automatic Fire Extinguishing System

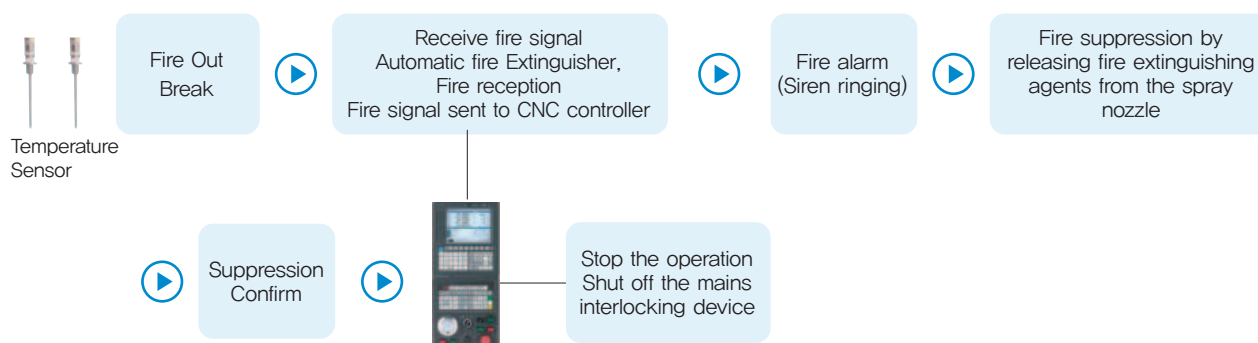
Product Overview

Automatic Fire Extinguishing Equipment (Temperature Sensor Type for Automatic Lathe)

- Install temperature sensors at the places of potential fire outbreak. If a sensor detects the temperature going up beyond the set temperature, it transmits a fire signal to automatic fire extinguishing equipment, and the automatic fire extinguisher sends a fire signal to the CNC controller on the automatic shelf.
- The CNC controller on the automatic shelf operates, interrupts, and shuts down the interlocking device, and sprays fire extinguishing agents from the spray nozzle to quickly extinguish the fire at an early stage.



Operational Sequence of Automatic Fire Extinguishing Equipment



FIRE EXTINGUISHER



ALWAYS READY FOR DANGER
EVERYONE'S SAFETY

Class“K”Fire Extinguisher

Spray-type and Throw-type
Fire Extinguishers

Kitchen Stick Fire Extinguisher

Stored Pressure Dry Chemical
Fire Extinguisher

Vehicle Fire Extinguisher

Anti-panic Fire Extinguisher

Automatic Diffusion Fire
Extinguishing Device

AND HOPE

Class“K”Fire Extinguisher

Class“K”fire?

Refers to cooking oils including combustible cooking ingredients (vegetable or animal oils or fats).

Class“K”Fire Extinguishers 4 Liter



| | |
|-----------------------|-------------------|
| Model | Kfire K-4.0 |
| Type Approval | 수소 17-33-2 |
| Capacity | 4.0L Wet Chemical |
| Fire Rating | Class A,B,K |
| Total Weight | 7.3Kg |
| Discharging Range | 3~5m |
| Discharging Time | 60sec |
| Operating Pressure | 0.97MPa |
| Operating temperature | -20°C~40°C |

Class“K”Fire Extinguishers 3 Liter



| | |
|-----------------------|-------------------|
| Model | Kfire K-3.0 |
| Type Approval | 수소 17-46-1 |
| Capacity | 3.0L Wet Chemical |
| Fire Rating | Class A,B,K |
| Total Weight | 5.7Kg |
| Discharging Range | 3~5m |
| Discharging Time | 52sec |
| Operating Pressure | 0.97MPa |
| Operating temperature | -20°C~40°C |

KISEN K-Class Fire Extinguisher: **Saponification + Cooling Effect**

KISEN's K-Class fire extinguisher is specially optimized for fires involving edible oils and fats—both vegetable and animal—primarily used in commercial cooking equipment.

A new regulation requires that at least **one of the fire extinguishers installed in a restaurant kitchen must be a K-Class fire extinguisher.**



Ordinary fire extinguishers are not effective for kitchen (cooking oil) fires.

Only K-Class fire extinguishers can effectively suppress such fires.

For K-Class fires, the difference between the ignition point and flash point is small (about 60° C), and the boiling point is much higher than the flash point (flash point around 360° C, boiling point around 400° C). Even if the fire is extinguished by saponifying the surface, re-ignition can occur instantly. Therefore, effective fire suppression requires not only the immediate saponification of the burning surface but also the rapid cooling of flammable materials (such as cooking oils).

Spray Type Fire Extinguisher K-Spary

Kiire has the technologies to make "EASY, COMFY and HANDY" Fire Extinguisher for immediate response to fire accidents.



Efficiency



Safety



Power

"EASY, COMFY and HANDY" Fire Extinguisher
Immediate response to "FIRE" is very important



| | |
|------------------------|--|
| Model | K Spray |
| Type Approval | 간소19-13 |
| Preservation Period | 2year (0~40℃) |
| Discharge Range | 1m~5m |
| Discharge Time | 25 sec |
| Uses | Immediate response to oil and fabric material fire accident. |
| Material Specification | Wet Chemical 427ml, Total weight 612g |



▲ Components

Throw-type Fire Extinguishers K-Shot



* 축표 23-7

Throw at the fire for immediate response. You can prevent fire by quick response of throwing.



Efficiency



Safety



Power

"EASY, COMFY and HANDY" Fire Extinguisher
Throw for quick response to fire accidents



| | |
|---------------------|---|
| Model | K-Shot |
| Type Approval | 간소19-8-1 / 간소19-8 |
| Preservation Period | 2year (-20℃ ~ 45℃) |
| Remarks | Wet Chemical based, Does not creat residue. |
| Purpose | Immediate response to fire(Home, camping and portable). |
| Specification | Wet chemical 680ml, Total weight 890g (without bracket) |



▲ Components

- Easy, comfy and handy to carry.
- Recommended to place these items at fire-prone products are produced for immediate fire response.
- Constant inspection is not required. No residue after used for fire fight.

► Specification: 1 Piece in 1 set, 2 in 1 set, 4 in 1 set (Brackets included)

Kitchen Stick Fire Extinguisher For cooking oil fire

K-fire Stick



2 in 1 box



5 in 1 box



1 in 1 box

**If there is a fire during cooking,
put it in at the beginning!**



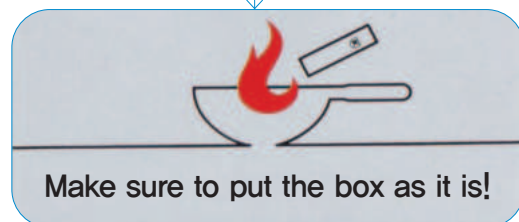
In the event of a
cooking oil fire



Put the product
box in the fire
container as it is



Ventilate and
check for
evolution



Make sure to put the box as it is!

Precautions

- It is for the initial fire suppression in response to a fire of less than 2 liters of cooking oil.
- It cannot be used except for cooking oil fire.
- Do not throw oil as it may splatter.
- Be sure to close the gas valve in the event of a fire.
- Please ventilate thoroughly after extinguishing the fire.
- Install out of reach of children.
- If you take it, vomit it immediately, and if there is any abnormality, consult a doctor.
- If the container is damaged and comes into contact with digestive medicine, wash it well with water and consult a doctor if there is any problem.

Stored Pressure Dry Chemical Fire Extinguisher



※ Type Approval code can change.

Stored Pressure Dry Chemical Fire Extinguisher Specifications



| Model | Capability Unit | Main Ingredient | Charging Gas | Working Pressure | Total Weight | Powder Weight | Discharging Time | Discharging Distance | Height | Outer Diameter |
|-----------------------|------------------------|---|----------------|------------------|--------------|---------------|------------------|----------------------|--------|----------------|
| Stored Pressure 0.7kg | A:1 B:1 C:Applicable | Ammonium Dihydrogen Phosphate (NH ₄ H ₂ PO ₄) | N ₂ | 0.9MPa | 1.5kg | 0.7kg | 10초 | 2~3m | 309mm | 83mm |
| Stored Pressure 1.5kg | A:2 B:3 C:Applicable | | | | 2.8kg | 1.5kg | 10초 | 4~5m | 350mm | 125mm |
| Stored Pressure 2.5kg | A:2 B:4 C:Applicable | | | | 4.0kg | 2.5kg | 12초 | 4~5m | 395mm | 135mm |
| Stored Pressure 3.3kg | A:3 B:5 C:Applicable | | | | 5.2kg | 3.3kg | 12초 | 4~5m | 450mm | 145mm |
| Stored Pressure 4.5kg | A:4 B:6 C:Applicable | | | | 7.1kg | 4.5kg | 14초 | 5~6m | 478mm | 150mm |
| Stored Pressure 6.5kg | A:5 B:10 C:Applicable | | | | 9.9kg | 6.5kg | 18초 | 5~6m | 555mm | 175mm |
| Stored Pressure 20kg | A:10 B:20 C:Applicable | | | | 36kg | 20kg | 33초 | 6m | 910mm | 284mm |

Vehicle Fire Extinguisher



| Product Name | Rating | Agent Composition | Propellant Gas | Working Pressure | Total Weight | Total Weight | Discharge Time | Discharge Range | Height | Diameter |
|-----------------------|---------------------|------------------------|----------------|------------------|--------------|--------------|----------------|-----------------|--------|----------|
| Stored Pressure 0.7kg | A:1 B:1 C: Suitable | Monoammonium Phosphate | N ₂ | 0.9MPa | 1.5kg | 0.7kg | 10초 | 2~3m | 261mm | 74mm |

Anti-Panic Fire Extinguisher

Fire Extinguisher for Preventing Panic 3.3 kg (for home and office)

It is the **only** PANIC-FREE SAFETY PIN in Korea to prevent panic.

RUN&SHOT Panic Free

The safety pin is removed even when the handle is gripped, allowing fire extinguisher injection without panic.



▲ Fire extinguisher safety pin



▲ Kfire panic prevention fire extinguisher pin



| | |
|----------------------|---------------------------|
| Model | Compressive - 3.3kg |
| Type Approval | 수소15-15-5, 수소23-11 |
| Fire Rating | A:3 B:5 C:Applied |
| Main Ingredient | Ammonium dihydrophosphate |
| Charging Gas | N ₂ |
| Working pressure | 0.9MPa |
| Total Weight | 5.2kg |
| Powder Weight | 3.3kg |
| Discharging Time | 12Seconds |
| Discharging Distance | 4~5m |
| Height | 450mm |
| Outer Diameter | 145mm |



Automatic Diffusion Fire Extinguishing Device



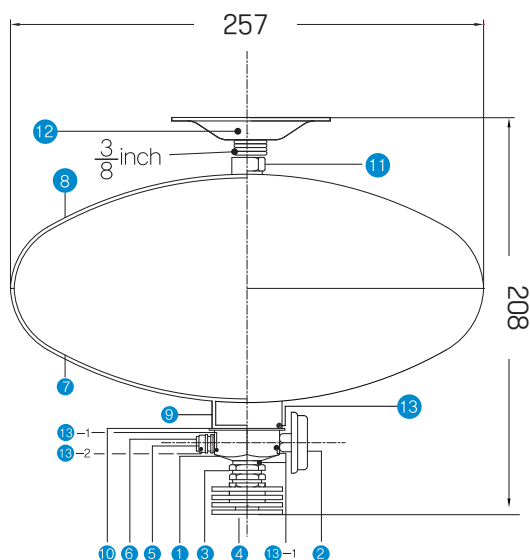
Components and Specifications of Automatic Diffusion Fire Extinguishing Equipment

HK-FD30



| | |
|-----------------------------|---------------------------------------|
| Type Approval | 확산 24-2 |
| Operating Temperature | 72°C |
| Chemical Weight | 3kg |
| Discharge Time | 10sec |
| Charging Pressure | 7~9.8kg/cm ² |
| Total Weight | 4.8kg |
| Operating Temperature range | -20~40°C |
| Protection Space | 1 m ² |
| Main Ingredient | Ammonium Dihydrogen Phosphate |
| Charging Gas | N ₂ |
| Extinguishing Performance | General fire and electrical equipment |

Structural Diagram



Usage

- Laundry and drying room
- Boiler rooms in apartments and homes
- Rooms and engine rooms at the inn
- Factory's workroom, substation room, engine room, product warehouse
- Rooms and engine rooms of fishing boats and ships
- Various oil handling stations and storage

Installation Method and Precautions

- Attach the ceiling mount vertically and firmly to the ceiling, and then rotate the body clockwise to insert it
- Check if the needle of the pressure gauge is in the normal position before attaching it
- Check if the needle of the pressure gauge is in the normal position at least once a month
- If the needle of the pressure gauge is in a defective position and there is a problem when installing it, contact the handling store or headquarters for inspection

GAS/ALARM

Detectors

03



ALWAYS READY FOR DANGER
EVERYONE'S SAFETY

Gas Leakage Alarm

CO Gas Leakage Alarm

Gas Leakage Confirmation
Device

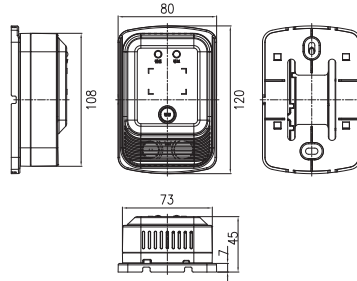
Gas Timer

AND HOPE

Gas Leakage Alarm 가21-30

Gas Leakage Alarm KF-A220V

※ The type approval code can change.



| | |
|-------------------------|--|
| Type | Stand-alone gas alarm |
| Model | KF-A220V |
| Power | AC 220V |
| Electricity consumption | 2.0W |
| Alarm output | WHEN ALARMED-DC 12V / contact signal : NO, NC, COM |
| Operating temperature | -20~40℃ |
| Detection method | Diffusivity and contact combustion |
| Applicable gas | LPG, LNG |
| Alarm concentration | LPG 0.05~0.45% LNG 0.05~1.25% |
| External dimension | 80(W)×120(H)×45(D) bracket included |
| Weight | 300g |

CO Gas Leakage Alarm (Battery Type)



CO Gas Leakage Alarm HK-CO100

※ CO alarms are a battery-type alarm product that detects CO gas and generates an alarm, and are easy to install

CO Alarm Battery Type



— AA Lithium Battery 1.5V 2EA included



| | |
|-----------------------|--|
| Model | CO Alarm / HK-CO100 |
| Type Approval | 가21-31 |
| Power | AA size 1.5V lithium battery 2PCS (3.0V) |
| Weight | 145g(with battery) |
| Used Environment | -20℃~50℃ / RH 95% less |
| Display | Power LED: Flashing green LED Alarm LED: CO gas detection (250 ppm or more) illuminated |
| Sound Output | Alarm: Voice guidance and alarm sound Battery Low Power: Battery replacement voice notification |
| Output Signal | Point of contact |
| Installation | Mount the Bracket on Wall Easy installation (Magnet insertion of bracket : boiler body can be attached) |
| GAS | Mono Oxide (CO) |
| Gas Sensing System | Electro chemical formula |
| Initial stabilization | 30seconds |
| PCB | 2 Layer FR4 |
| Size | 90mm(W) X 90mm(H) X 25mm(D) |

- Bracket fixing mount type (magnet type / ring fixed type)
- Self-operation test possible (test button applied)
- 5 years of battery life / 10 years of sensor life
- Battery replacement and alarm voice function
- Using a high-performance electrochemical sensor

CO Gas Leakage Alarm



CO Gas Leakage Alarm (Composite Type)

- Inspection method: It is normal if the orange light turns on after 5 seconds of alarm sound when the check button is pressed.



| | |
|-----------------------|--|
| Type number | 가22-28 |
| Power Supply | AC220V |
| Weight | 190g |
| Usage temperature | -20℃~40℃ / RH 95% or less |
| Display | Power LED: Green LED On GAS detection: Yellow light/ CO detection: Yellow Flashing (0.5 seconds) GAS&CO detection: Yellow Flashing (0.25 seconds) |
| Sound Output | Alarm on: Buzzer noise |
| Signal Output | Contact output : open collector |
| Fixed method | Fixing the Bracket on wall Easy installation (Magnet insertion of bracket: Can attach boiler body) |
| Gas | Mono Oxide(CO), LPG/LNG |
| Gas Sensing System | Electrochemical / Catalytic combustion |
| Initial stabilization | 30seconds |
| PCB | 2Layer/FR4 |
| Dimension | 72(W)×108(H)×45(D)with bracket |

CO Gas Leakage Alarm (AC Type)

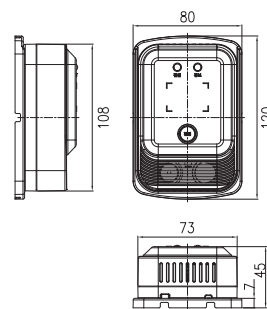
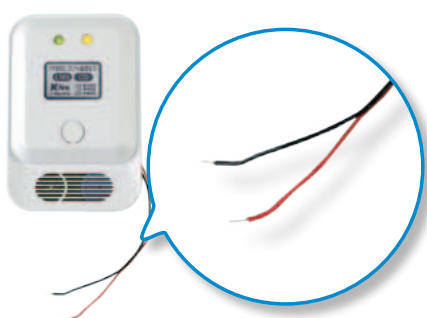
- Inspection method: It is normal if the orange light turns on after 5 seconds of alarm sound when the check button is pressed.



| | |
|-----------------------|---|
| Type number | 가21-64 |
| Power Supply | AC220V |
| Weight | 185g |
| Usage temperature | -20℃~40℃ / RH 95% or less |
| Display | Power LED: Green CO Detection: Yellow |
| Sound Output | Alarm on: Buzzer noise |
| Signal Output | Contact output : open collector |
| Fixed method | Fixing the Bracket on wall Easy installation (Magnet insertion of bracket: Can attach boiler body) |
| Gas | Mono Oxide(CO) |
| Gas Sensing System | Electrochemical |
| Initial stabilization | 20seconds |
| PCB | 2Layer/FR4 |
| Dimension | 72(W)×108(H)×45(D)with bracket |

Powerless Contact System

- The powerless method outputs a signal when connecting a line to either side.



Gas Leak Confirmation Device (Bubble Cock / Bubble Valve)

KGS Korea Gas Stabilization Corporation Qualified Product

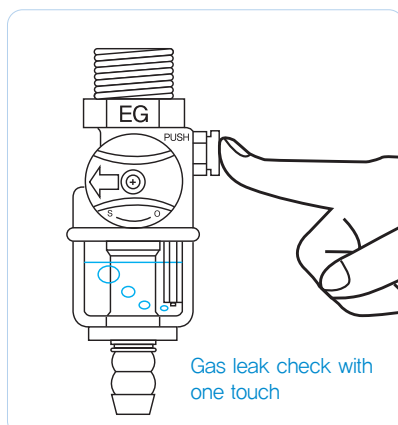
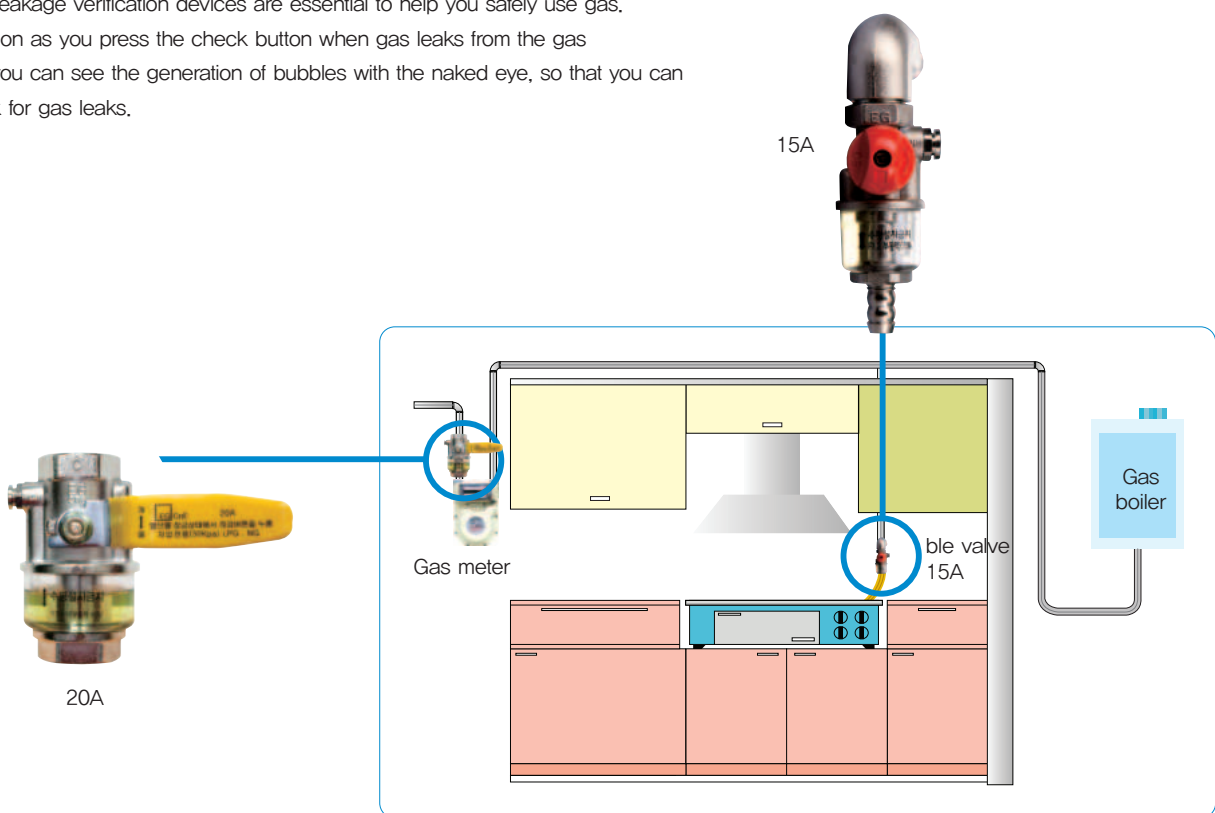
Gas Leak Confirmation Device (Bubble Cock / Bubble Valve)

- Construction standards (KGS FU511) access door and install gas leak check device obligations from May 25, 2011
- Gas leak check facility cock Fuse manufacture, inspection standards : KGS S
- Gas leak check valve piping for facilities manufacturing, technology, testing standards : KGS S

Multi-function gas meter replacement (no replacement required every five years)

How to use

- Gas leakage verification devices are essential to help you safely use gas.
- As soon as you press the check button when gas leaks from the gas pipe, you can see the generation of bubbles with the naked eye, so that you can check for gas leaks.



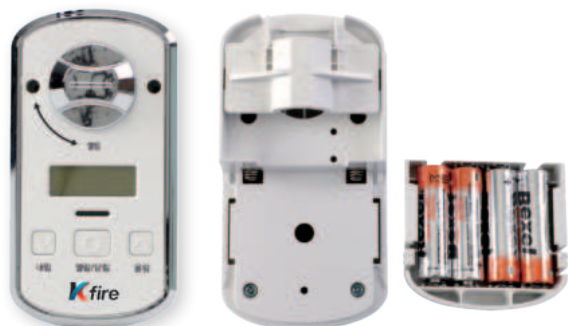
- If a notification occurs by pressing the check button with the cock locked, contact city gas for safety measures.
- Close all combustion appliances and valves at the bottom of the bubble cock to be checked.
- Place the opening and closing handle of the bubble cock in the locked position
- Press the check button continuously for 1 to 5 seconds.
- If bubbles continue to occur at regular intervals, leak sites in pipes, valves or combustion appliances Yes.
- Request a detailed diagnosis and repair from the gas supplier in case of bubbles.

Gas Timer

G.BLOCK
Automatic Complete Blocking

Gas Timer Components and Specification

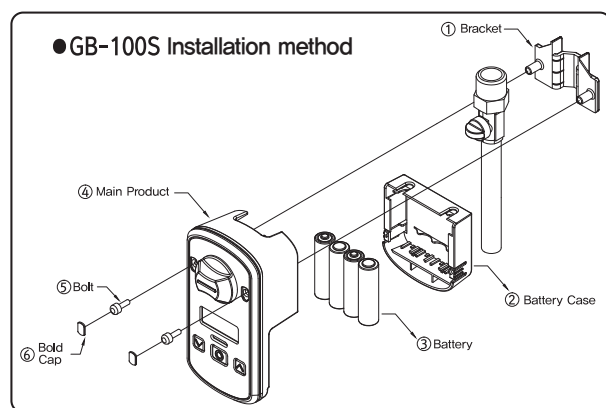
GB-100S – Voice Alarm Type



Power : AA Battery 4EA

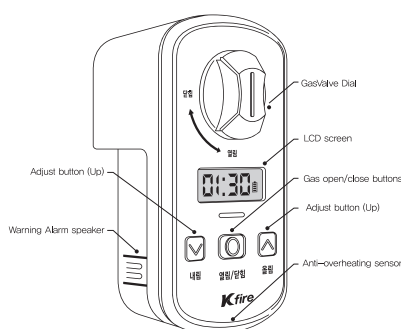
Size : 70x130x69 (WxHxD)

Installation



1. Place the gas valve in the closed state.
2. Place the gas timer in a closed state.
3. Place the bracket (1) behind the gas valve.
4. Place the gas timer on the gas valve and connect it with the bracket using the bolts provided.
5. Put the battery in and use the open/close buttons to check if the gas timer is working properly.
6. If it does not operate normally

Name and Functions



1. Gas open/close buttons – Operate the opening and closing of the gas valve.
2. Timer adjustment button (down) – to reduce the set time.
3. Timer adjustment button (up) – to increase the set time.
4. Liquid crystal display– Displays the set time and the LED flashes during the open/close operation.
5. Warning sound speaker – Provides status of the valve during open and close operation.
6. Anti-overheating sensor – detects ambient temperature and shuts off the valve.

How To Use

1. Power is off when the valve is closed.
2. When the open button is pressed once, the set time of use will be displayed in 20 minutes with the beep and the valve will be open.
3. You can increase the set time by 5 minutes by pressing the button.
4. Press the down button to reduce the set time by one minute.
5. Pressing the open/close button once after using the gas will cause the valve to be closed with a beep.
6. The temperature sense function is built in the product, so when the temperature around the product reaches 60 degrees, the valve is automatically closed to cut off the gas supply.
7. After the set time has elapsed, the valve is automatically closed with a beep and the gas timer is in standby.

EVACUATION DEVICE/ FIRE HOSE

Evacuation & Fire



ALWAYS READY FOR DANGER
EVERYONE'S SAFETY

Descending Ladder for
Downward Escape Exits

Descending Life Line

Descending Life Line Support
Bracket

Fire Hose

Fire Hose Nozzle

Angle Valve

AND HOPE

Descending Ladder for Downward Escape Exits

Escape Ladder EG-100



Korea Fire Institute
Certified Good



Disaster Prevention
Testing Laboratory

Folding Type



Sliding Type



• Classification

| 구분 | | Specifications and Names | Remarks |
|---------------------|---------------|--------------------------|----------------------|
| Storage case | Material | Stainless Steel (STS) | main body 1.2t |
| | | POSMAC 3.0 | main body 1.5t |
| Main body (Folding) | STEP Interval | 346mm | |
| | STEP Width | 320mm | |
| | Material | Iron (hot rolled steel) | Galvanized, Chromium |
| Main body (Sliding) | STEP Interval | 345mm | |
| | STEP Width | 335mm | |
| | Material | Aluminum | |



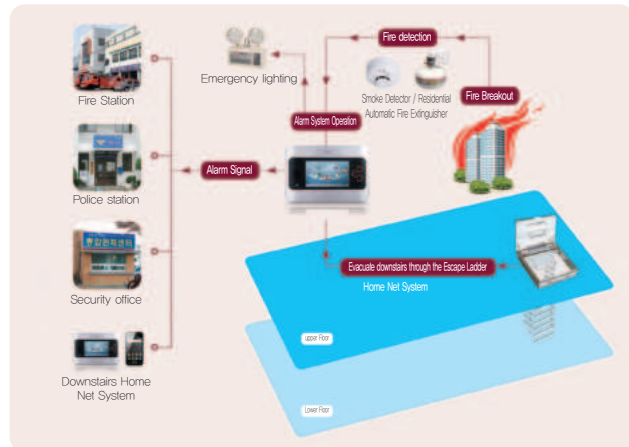
* 축표 23-6

• Standard

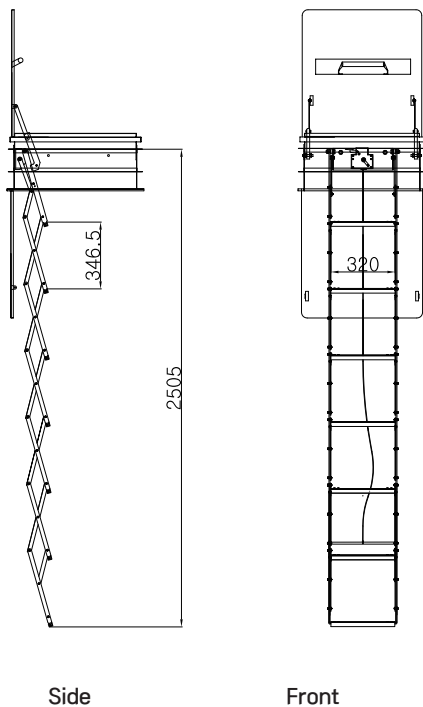
| Type Form(mm) | Height(mm) |
|-----------------------|-------------|
| Standard | |
| Outer : 650(W)×680(L) | 2480 ~ 3300 |
| or | |
| Outer : 640(W)×675(L) | |
| High building | |
| Outer : 655(W)×800(L) | 3310 ~ 4900 |
| Outer : 655(W)×910(L) | 4910 ~ 6200 |

- ▶ Type approval and certification products of the Korea Fire Industry Research & Extension Services
- ▶ Appropriate products for the disaster prevention testing laboratory

• Interworking with home network system



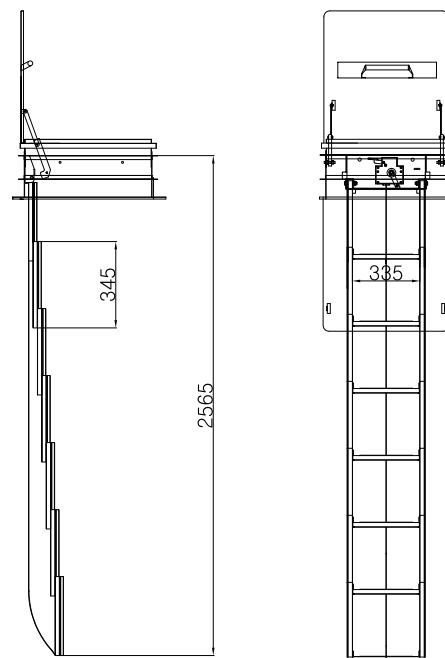
Folding Type



Side

Front

Sliding Type



Side

Front

Product Features

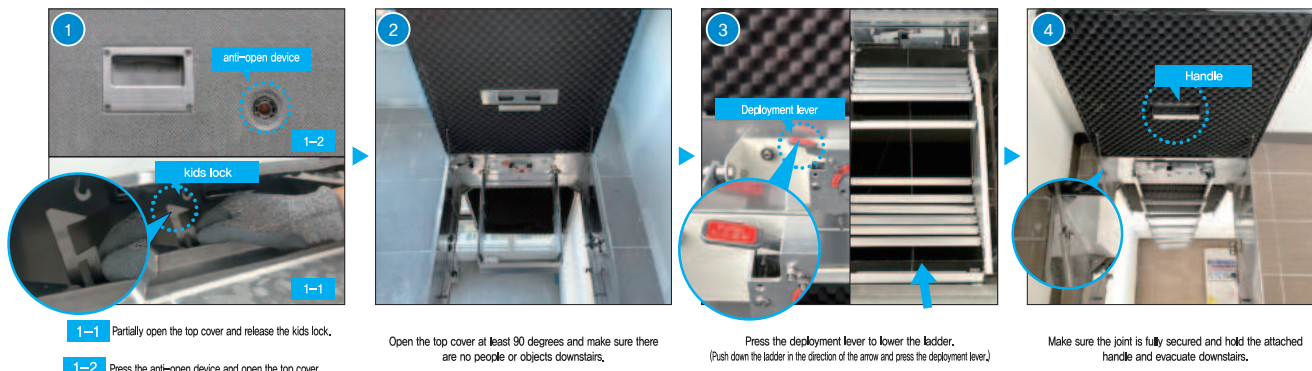
Warning



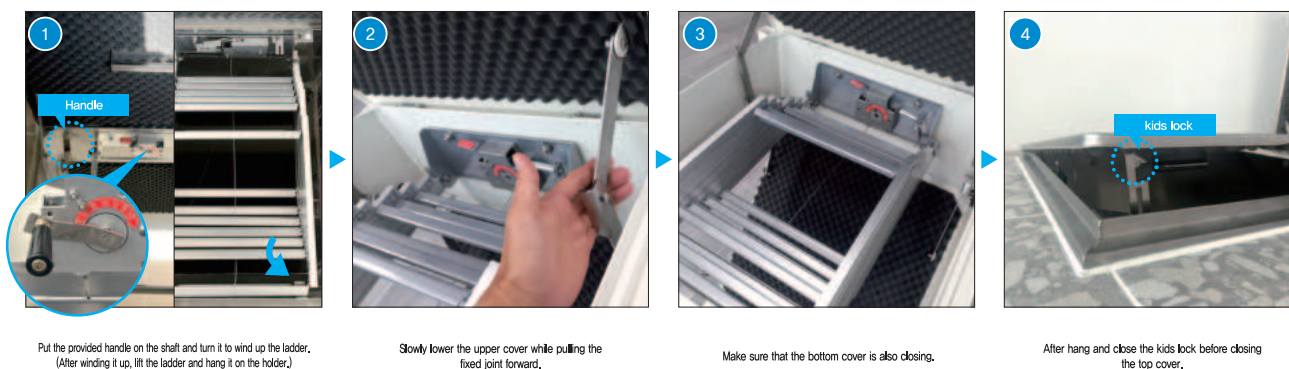
- Please do not use it except for evacuation purposes.
- Please do not put anything on the upper door.
- Do not open it except for emergency evacuation. Alarms sound in the disaster prevention room and downstairs.



• Opening an Evacuation Ladder

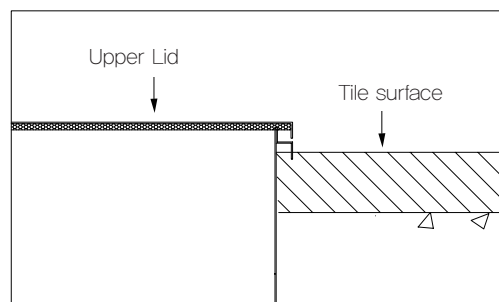


• Folding an evacuation ladder

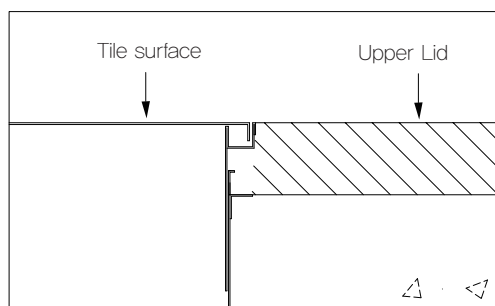


Upper finish form

- 1) Protruding type (protruding 2~3 cm from the finish surface)



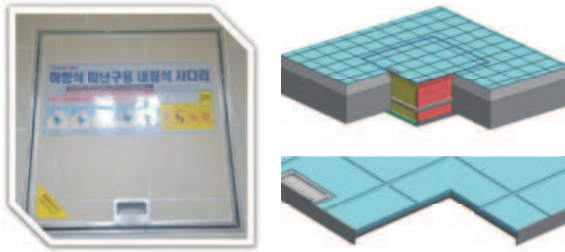
- 2) Same type of floor (matching level with finish)



Options

Sub-finish option

- Top cover tile attachment type (optional)



- The top hatches finish exactly like the floor tiles, so the look is clean
- It is a type that directly constructs tiles on the upper part of the hatch, and there is a concern that the tiles may fall or be damaged in the future.
- Since the upper lid due to tile construction is heavy, it may be difficult for the elderly and children to use

- Upper cover clear coating type (optional)



- After printing on the upper cover with the same color and pattern as the floor (tile), clear coating is applied so as not to peel off to maintain.
- After the primary powder painting, the cost becomes expensive because it is printed at 5 degrees, and the coating liquid is sprayed and baked again on it is baked.
- Since it is printed, there is a limit to accurately match the color of the tile.

Other Options

- Acrylic Emergency Open Button

It is installed by attaching a lock to prevent invasion of privacy, and in case of an emergency, if you press the upper acrylic with your hand, the acrylic is damaged and the lower opening device button is pressed to open it.



Acrylic Emergency Open Button

Lower Finishing Process



Lower lid general finish



Lower lid powder coating finish

- Material: SUS 304
- Thickness: 1.2 t
- Features: Integrated with the ceiling, the finish is clean

Can be painted in a color similar to the ceiling color (Having powder coating lines in the factory)

Descending Life Line

KFI Korea Fire Institute
Certified Good

Descending Life Line

In case of a fire or an emergency situation, the device makes a user descend automatically by him /her weight, hung to the support.



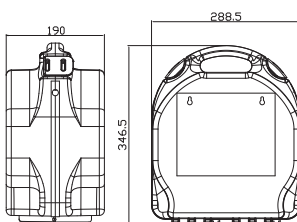
Specifications

| | |
|-----------------------------------|-----------------|
| Type No. | 완 21-1 / 25-1 |
| Tensile Strength of Belt and Rope | 900~1,000kg |
| Maximum Service Load | 150kg |
| Maximum Number of Users | 1 Person |
| Descending Speed | 16cm/s ~150cm/s |

Type

| Model | Floor Level | Length (m) | Weight (kg) |
|---------|-------------|------------|-------------|
| HKDD-2 | 2F | 6 | 5.80 |
| HKDD-3 | 3F | 9 | 6.02 |
| HKDD-4 | 4F | 12 | 6.24 |
| HKDD-5 | 5F | 15 | 6.46 |
| HKDD-6 | 6F | 18 | 6.68 |
| HKDD-7 | 7F | 21 | 6.90 |
| HKDD-8 | 8F | 24 | 7.12 |
| HKDD-9 | 9F | 27 | 7.34 |
| HKDD-10 | 10F | 30 | 7.56 |
| HKDD-11 | 11F | 33 | 7.78 |
| HKDD-12 | 12F | 36 | 8.00 |
| HKDD-13 | 13F | 39 | 8.22 |
| HKDD-14 | 14F | 42 | 8.44 |
| HKDD-15 | 15F | 45 | 8.66 |

Slow Descending Device Case - For Stepping



Load tested and confirmed by Korea Conformity Laboratories

Step on for Emergency escape

This product can be used for stepping on in case of emergency

Load test detail

7. 시험결과

1) 완강기형

| 시험항목 | 단위 | 시험방법 | 시험결과 | 비고 | 시험장소 |
|--------|----|------|-------|--------------------------------|------|
| 최대압축하중 | kN | (1) | 10.11 | (23.0 ± 1.0) °C / (50 ± 2) %RH | A |

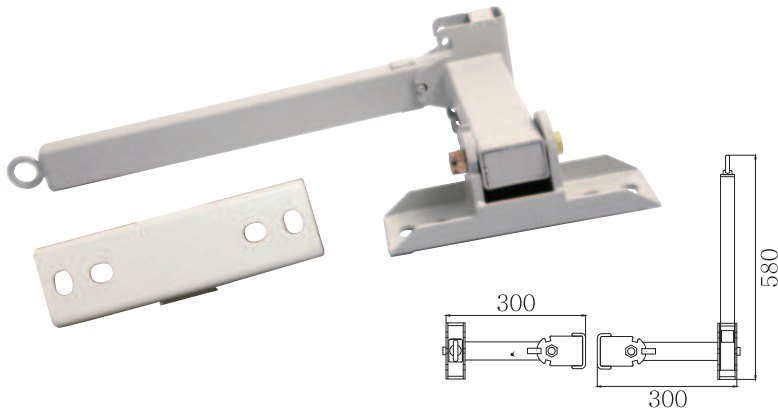
※ 시험장소

A : 서울특별시 금천구 가산디지털1로 199 (가산동)

Descending Life Line Support Bracket

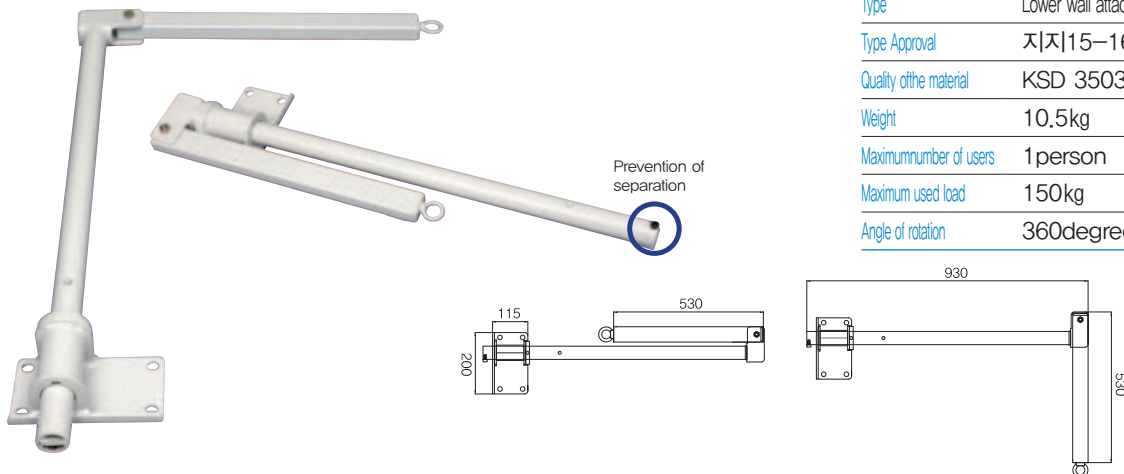
In case of a fire or an emergency situation, the device makes a user descend automatically by him /her weight, hung to the support.

Inside Wall Attachment Type 2-Stage Support



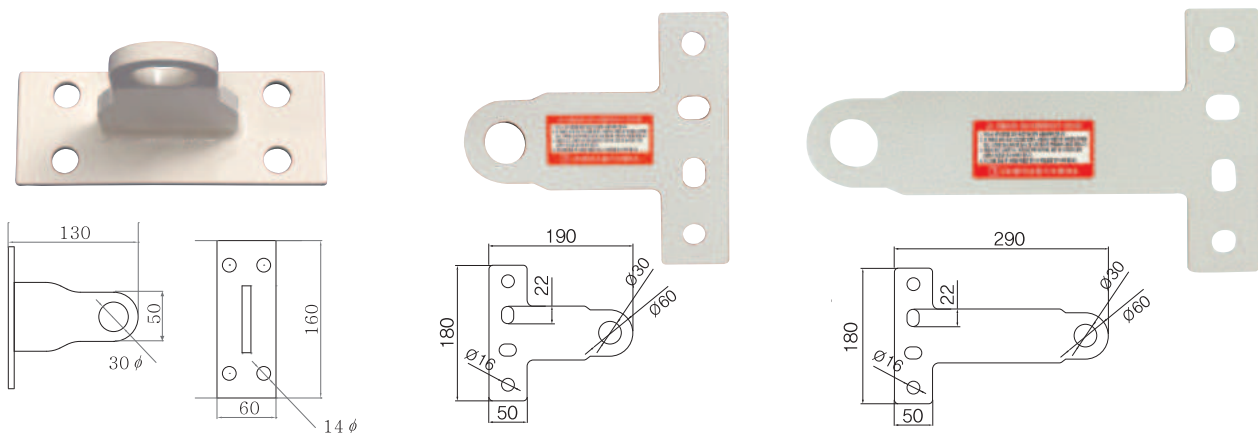
| | |
|-------------------------|--------------------------------------|
| Type | Inner wall-mounted two-stage support |
| Type Approval | 지 지 19-1 |
| Quality of the material | KSD 3503(SPHC) |
| Weight | 5.5kg |
| Maximum number of users | 1 person |
| Maximum used load | 150kg |
| Angle of rotation | 150degree |

Lower Wall Attachment Type Support



| | |
|-------------------------|------------------------------------|
| Type | Lower wall attachment type support |
| Type Approval | 지 지 15-16, 지 지 23-3 |
| Quality of the material | KSD 3503(SS400) |
| Weight | 10.5kg |
| Maximum number of users | 1 person |
| Maximum used load | 150kg |
| Angle of rotation | 360degree |

Outside Wall Attachment Type Support



| | |
|-------------------------|----------------------------------|
| Type | Outsider Wall Attachment Support |
| Type Approval | 지 지 15-13 |
| Quality of the material | KSD3698 (SUS304) |
| Weight | 0.86Kg |
| Maximum number of users | 1 person |
| Maximum used load | 150Kg |

| | |
|-----------------------------------|----------------------------------|
| Type | Outsider Wall Attachment Support |
| Type Approval | 지 지 17-1 |
| Quality of the material | KSD3698 (SUS304) |
| Weight | 0.89Kg |
| Maximum number of users | 1 person |
| Maximum used load | 150Kg |
| Painted Color of External Bracket | Ivory, Dark navy blue, Dark gray |

| | |
|-----------------------------------|----------------------------------|
| Type | Outsider Wall Attachment Support |
| Type Approval | 지 지 17-2 |
| Quality of the material | KSD3698 (SUS304) |
| Weight | 1.29Kg |
| Maximum number of users | 1 person |
| Maximum used load | 150Kg |
| Painted Color of External Bracket | Ivory, Khaki, Brown |



Fire Hose

Hose Reel Drum Set



Hose

| | |
|----------------------|-----------------------|
| Jacket (Outer Layer) | Polyester |
| Lining (Inner Layer) | Polyurethane |
| Working Pressure | 7 kg/cm ² |
| Test Pressure | 15 kg/cm ² |
| Length | 15m, 20m, 25m, 30m |
| Color | Red, White |

Drum

| | |
|----------|-----------------------|
| Size | Ø550X130(15, 20, 25m) |
| | Ø600X130(30m) |
| Material | SS400 (Powder Coated) |

Fire Hose

Indoor 40A



Outdoor 65A



| Contents | Type | Urethane embedded hose | |
|---|-------------------|------------------------|-------------------|
| | | 40mm(indoor) | 65mm(outdoor) |
| Type approval | 호19-10 / 호19-10-1 | 호19-10 / 호19-10-1 | 호19-10 / 호19-15-1 |
| Breaking pressure | 3.4MPa | | 3.6MPa |
| Weight(g/m) | 140 | | 180 |
| Thickness | 0.4mm | | 0.4mm |
| Rate of elongation | 0.5% | | 0.75% |
| Tensile Strength before Inner Lining ages | 52MPa | | 54MPa |
| Elongation rate before Inner Lining ages | 430 | | 435 |

Features of K hose

- Internal and burst pressure is high
- Recovery of elasticity is quick
- It has good abrasion resistance, anti-aging resistance and is easy to use.
- The elasticity of the lengthside is less and the changes of warp is less.
- Acid resistance, corrosion resistance and tension are high
- Heat resistance, cold resistance, light weight, and small volume

Domestic Production Facility Photographs



Fire Hose Nozzle

K-Hose Fire Hose
Nozzle-40



K-Hose Fire Hose
Nozzle-65



| | |
|----------------------------|--|
| Type classification | Radial discharge and use of hydrant fire |
| Type approval | 관22-1, 관22-2 |
| Maximum operating pressure | 14kg/cm ² |
| Ending pressure | 20kg/cm ² |
| Main material | Aluminum |

Product use

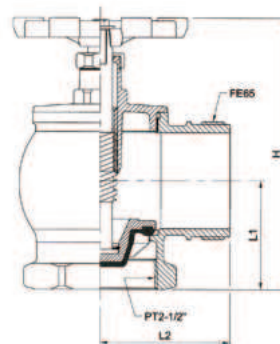
It is an outlet for discharge water by connecting to fire hoses of indoor and outdoor fire hydrants. It is made of aluminum, which is light in weight, and has excellent fire extinguishing effect and cooling effect as an equipment that can be freely selected as direct and radial.

Angle Valve

HK-IF40



HK-IF65



| Model | Inlet | Outlet | size | | | Test pressure | Material | Weight | Approval |
|---------|-------|--------|------|----|----|---------------|----------|--------|----------------------|
| | | | H | L1 | L2 | | | | |
| HK-IF40 | PT40 | FE40 | 148 | 53 | 57 | 2.0MPa | BRONZE | 1.28 | KFI Certification |
| HK-IF65 | PT65 | FE65 | 180 | 72 | 85 | 2.0MPa | BRONZE | 3.15 | |

EV FIRE SUPPRESSION SOLUTION

05



*ELECTRIC VEHICLE
FIRE SUPPRESSION SOLUTION*

Mobile Fire Water Tank

Fixed Fire Water Tank

KAION Firefighting Robot

Fire Suppression System for EV
Charging Facilities

FX-Robot

Smothering Fire Blanket

Mobile Fire Water Tank



KEV-WT-01

| | |
|-------------------|---|
| Air Volume | 3,000L |
| Air Charging | Within 3 minutes (use air respiratory containers) |
| Installation Size | 5,000mm(L) x 2,500mm(W) x 1,000mm(H) |
| Storage Size | 1,000mm X 1,000mm X 600mm |
| Weight | 65kg |

KEV-WT-02(Premium)

- Application of high-pallon fabric. Small storage volume and weight reduction

Product Features

- Size can be changed according to user request
- Handle, gas inlet, outlet, etc
- Can be changed in quantity and location through consultation
- Mark guidelines for easy center installation
- Installing a ring that can be connected to a rope
- Special inorganic particle coating stabilizes the shape even at 1000°C or higher
- Weight around 25 kg
- Recommended number of uses 5 times

KEV-WT-01 (Standard)

- Polyester + PVC coating fabric applied. Relatively heavy

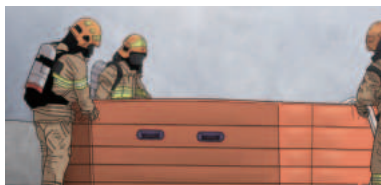
Installation Order



Floor installation



Wall installation



Water supply

Fixed Fire Water Tank (KEV-WT-101)



Product characteristics

- Installation in an electric vehicle charging facility
- The fire extinguishing water tank storage box is installed on the floor along the parking line, and the fire extinguishing water tank is automatically formed when the operation button is pressed in case of a fire.
- Aiming and releasing water from the Kaion(Fire fighting robot) to extinguish electric vehicle fires

Product Configuration

- Storage box & Control box

Storage Box

- Applied material SUS304 and thickness of 3T
- Hyphalon-based Fire Extinguishing Water Tank
- Fire extinguishing water tank built in 4 layer of Ø15cm x 4 up to 60cm high
- After suppression of early stage fire, activate manually to pump the water

Control Box

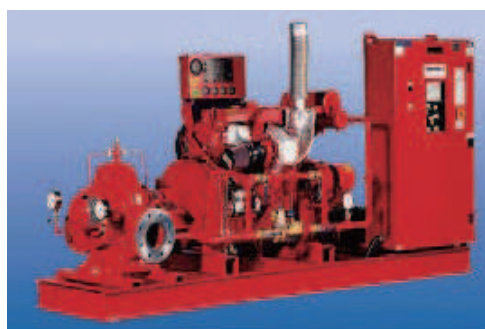
- Storage of high-pressure gas containers for filling fire extinguishing water tanks
- Auto/manual switch attachment with solenoid valve
- Installation of the fire extinguishing water tank exhaust pump

KAION : Fire Fighting Robot



Specification

| | |
|--|---|
| Item | Fire Fighting Robot |
| Components | Controller, nozzle, camera, IR sensor |
| Fire detection | UV, IR, CAMERA |
| Water tank capacity | 1,600L (10 minutes), 3,200L (20 minutes) |
| Water discharging time | 10 ~ 20 minutes |
| Pump capacity | 3HP, Three phases 220/380 |
| Nozzles I.D. | 14.6mm |
| Pipe size (Suction and discharging) | 32A |
| Appearance figures (horizontal x vertical x height) | Nozzle height : 3m ~ 5m 1) Water tank for 10 minutes : 920×920×2,000 2) Water tank for 20 minutes : 1,300×1,300×2,000 (2-stage separation type) |



Fire Recognition

- Real-time fire monitoring
- UV, IR and Camera (Application of three types of fire detection systems) → Ensuring accuracy
- Fire detection recognition rate of 90%↑

Fire Suppression

- TRACKING AND SUPPRESSION OF IGNITION POINTS
- FEEDBACK ON FIRE EXTINGUISHING
- D/B SET UP AND LEARNING AI
- REMOTE AND MANUAL OPERATION

Application



Ships · ports



Aircraft



Airport



Tunnel



Hotel lobby



Industrial site

Fire Suppression System for EV Charging Facilities



Product Components

- Fire extinguishing water tank storage (Hypalon applied), Control box, Fire fighting robot

Application Principle

- A fire breakout
- Fire fighting robot detects fire (UV, IR, image recognition)
- Shoot out water for early stage of fire
- The fire extinguishing water tank control box receives a fire signal and opens the valve of the gas container connected to the fire extinguishing water tank to deploy
- When the fire extinguishing water tank is completely charged, it detects the internal pressure and stops supplying the charging gas
- Stabilize the battery by supplying water to the height of the battery of the accident vehicle

Operating Order



1. Fire break out – Fire fighting robot detects fire



2. Shoot out water for early stage of fire



3. The deployment of a fire extinguishing water tank



4. Fire release position fully submerged, battery stabilized

Fire Detection and Early Fire Response Firefighting Robot

FX-Robot



Product Features

- Video-based fire detection (fire detection while moving)–RGB camera / thermal imaging camera · Fire spot targeting · Initial fire response with liquid-type extinguishing agent (sprays over 5m)
- Mapping, autonomous movement, automatic charging · Wifi, mobile alerts and video monitoring

Product Specifications

| | |
|---------------------------------|---|
| Operating System | Android 5.1 or higher |
| Overall Size | Width, diameter: 51Ø, Height: 1300mm |
| Net Weight | 56kg |
| Driving Speed | 0.1~1.0 m/s |
| Maximum Payload | 60kg |
| Charging Time | 4A (approx. 8 hours), 7A (approx. 4 hours) (supports auto-charging) |
| Robot Input Power | 28.4V ~ 7A |
| Battery Specification | Lithium-ion 25.6V / 25Ah |
| Battery Usage Time | Approx. 20 hours |
| Web Connection Method | WIFI |
| Mobility Elements | 25m laser navigation (includes autonomous obstacle avoidance); Climbing angle: 5° , Turning radius: 0, Turning width: 254mm |
| Spraying Distance | Over 5m |
| Fire Extinguishing Agent Volume | 20 Liters |
| Fire Extinguishing Agent | Water or enhanced agent |
| Fire Detection | RGB camera, thermal imaging camera, AI-based video fire detection |
| Fire Detection Time | Within 2 seconds |

Smothering Fire Blanket (KEV-cover)

It can reduce damage to life and property by preventing fire suppression and spread in the event of an electric vehicle fire.



Why KEV-cover ?

Electric vehicles and charging facilities are also increasing as sales of eco-friendly cars increase. Electric vehicles have a risk of fire due to external shocks or during charging, and it is difficult to completely extinguish a fire with a general fire extinguishing method.

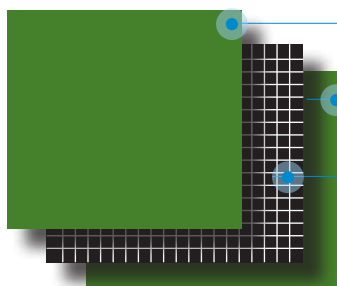
Kfire has various fire suppression solutions based on suffocation air by fire cover (KEV-cover) that can prevent initial spread and reduce human and property damage in response to electric vehicle fires.

By analyzing the usage environment, we consult appropriate fire prevention and suppression solutions by deploying fire extinguishing water tanks (KEV-WT), fire extinguishing robots (KAION), and fire extinguishing cover (KEV-cover) under optimal conditions.

Smothering Fire Blanket Artillery Technology Strategy for Battery Fire Protection

Material

- Glass fiber
- Silica fiber
- Smothering Fire Blanket



Heat-resistant silicone coating

heat-resistant silicone coating

Silica fiber / Glass fiber

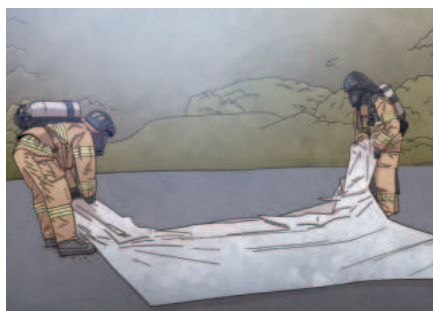
Performance

- Penetration strength
- Fire Resistance / Heat Resistance
- Inner resistance

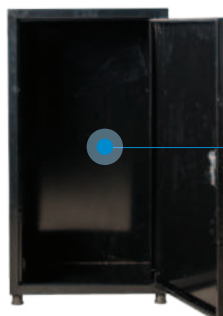


How to use

- Minimize fold damage
- Quick installation with accordion deployment method



Smothering Fire Blanket



□ Wheel

Both floor-fixing and floor-movable types are possible

□ Ending Material

SUS or Painting
(desired color customizable)

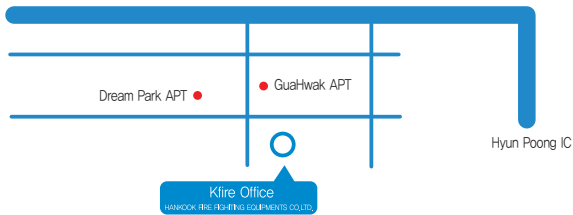
□ Rubber Packing

Waterproof rubber packing treatment of the molding part inside the fire extinguishing cover

Type A : Standard

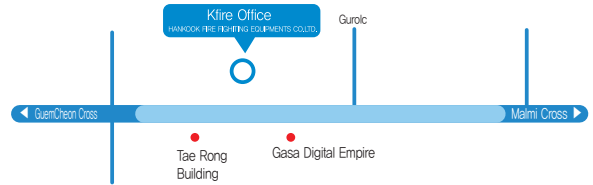
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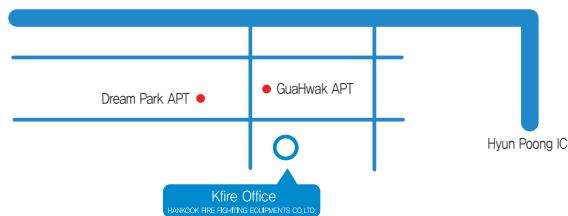
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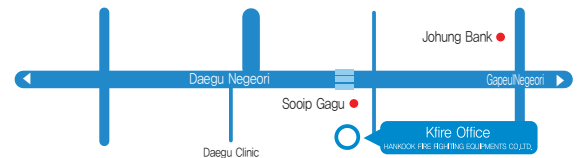
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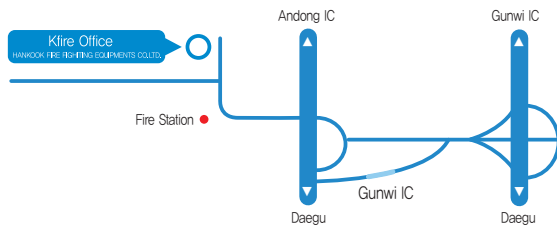
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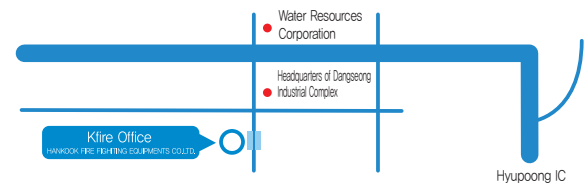
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