



K fire



Hankook Fire Fighting Equipments Co., Ltd. is the best fire fighting equipment manufacturing company in Korea.



Hankook Fire Fighting Equipments Co., Ltd.

Main phone | **1544-2774**

The happiness precious for you Hankook Fire Fighting Equipments Co., Ltd. is with you.

58 year-old Hankook Fire Fighting Equipments Co., Ltd.

Combination of tradition and technology!! The best class product in the industry made by 58 year-old knowhow.

The technology and knowhow accumulated for 58 years make it possible to produce the best product in the industry.
Hankook Fire Fighting Equipments Co., Ltd., a company of trust, pursue only the best.

Human-oriented Hankook Fire Fighting Equipments Co., Ltd.

We would be a company to defend safety for each and every person to enjoy convenient life.

Hankook Fire Fighting Equipments Co., Ltd. is the best fire fighting equipment manufacturing company in Korea.

Company History

- | | | | |
|----------|--|----------|---|
| 1961. 11 | Founded Hankook Fire Fighting Material Trading Company (151, 1-ga, Chilseong-dong, Buk-gu, Daegu-city) and started manufacturing fire fighting equipment | 2000. 09 | Industry-Academy cooperation with College of Engineering, Kyungil University |
| 1970. 01 | Moved the factory (365, Sinam-dong, Dong-gu, Daegu-city) | 2000. 10 | Obtained ISO 9002 certificate |
| 1975. 03 | Expanded and moved the factory (680-1, Geomdan-dong, Buk-gu, Daegu-city) | 2002. 11 | Be designated as a Promising Small & Medium Company by Daegu Bank |
| 1976. 05 | Obtained fire fighting equipment company license No.1 in Gyeongsangbuk-do | 2004. 03 | Developed gas leakage alarm & shut-off device |
| 1977. 07 | Received a citation from Minister of Home Affairs | 2004. 04 | Received a citation for excellent tax-payment from Head of Seodaegu Tax Office |
| 1978. 08 | Changed company name to Hankook Fire Fighting Equipment Company | 2004. 05 | Developed home network-linked automatic fire extinguisher |
| 1979. 11 | Moved factory to present location (1155, Jungri-dong, Seo-gu, Daegu-city) | 2005. 10 | Obtained Venture Business certificate (No. 051323032-1-0265) |
| 1986. 01 | Opened Seoul sales office (4-128, Siheung Industrial Material Distribution Center, 984, Siheung-dong, Geumcheon-gu, Seoul-city) | 2005. 12 | Obtained INNO-BIZ Company certificate (No. 5031-0789) |
| 1990. 01 | Converted the private company to a corporation, Hankook Fire Fighting Equipments Co., Ltd. | 2006. 09 | A technical innovation task is selected by Small and Medium Business Administration |
| 1991. 03 | Established Gyeongsan factory (Jain-myeon, Gyeongsan-city, Gyeongbuk) | 2006. 09 | Established a company-affiliated research institution of industry-academy cooperation |
| 1994. 11 | Established Gunwi factory (421-21, Suseo-ri, Gunwi-eup, Gunwi-gun, Gyeongbuk) | 2007. 10 | Be selected as a Daegu-city's 3030 company |
| 1995. 01 | Established Daegu sales office (283-3, Sincheon 3-dong, Dong-gu, Daegu-city) | 2008. 06 | Received a citation from the Director of National Emergency Management Agency |
| 1996. 07 | Obtained a type approval for and produced automatic fire extinguisher (Type approval: No. 96-07-567) | 2009. 01 | Completed construction of Guji-3 factory in Dalseong 2nd Industrial Complex |
| 1996. 08 | Obtained a manufacturing license for and produced gas appliance | 2010. 03 | Received a citation for excellent tax-payment from the Director of the National Tax Service |
| 1997. 02 | Obtained a type approval for and produced automatic fire extinguisher (Type approval: No. 97-02-64) | 2010. 06 | Be Selected as a Daegu Star company |
| 1998. 05 | Industry-Academy cooperation with Fire Fight Safety Department at Daegu Health College | 2010. 11 | Received a citation from the minister of Public Administration and Security |
| | | 2011. 07 | Industry-Academy cooperation with Keimyung University |
| | | 2012. 12 | Obtained INNO-BIZ certificate |
| | | 2014. 05 | Obtained Venture Company certificate |



Since 1961

We promise to provide customers with the best class products based on the knowhow we have accumulated through our 50-year's devotion.

Contents

04 Compressed Dry Powder Fire Extinguisher



05 Wet Chemical Stored Pressure Class "K" Kitchen Extinguishers



05 Automatic Diffusion Fire Extinguisher



06 Residential kitchen automatic fire extinguishing system



07 Smoke alarm



08 Descending Life Line / Support

11 Downward Lowering Ladder for Escape

12 Gas Leakage Alarm and Shut-off Device

13 Automatic Fire Extinguishing Apparatus for Commercial Kitchen

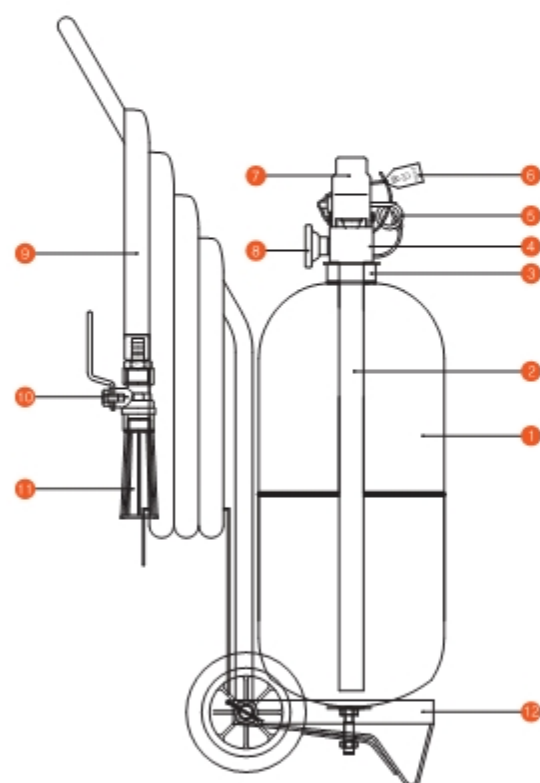
15 CNC Automatic Fire Extinguishing Equipment



Kfire

Compressed Dry Powder Fire Extinguisher

Structure of the 20Kg Manual Fire Extinguisher



- ① Cylinder
- ② Pipe for discharging the powder
- ③ Neck
- ④ Head
- ⑤ Safety Pin
- ⑥ Sealing String
- ⑦ Handle
- ⑧ Pressure Indicator
- ⑨ Hose
- ⑩ 15A Ball Valves
- ⑪ Nozzle (Horn)
- ⑫ Carrier (Cart)

Features

- Particular inspection is not required since it is possible to check the inner pressure just by watching the pressure indicator with the naked eyes.
- Since Nitrogen(N₂) is used, the ability to extinguish is excellent because the pressure changes upon temperature changes are not so big.
- Such efficient extinguishing activity is possible since 'Press the lever' means discharge and 'Release the lever' means block.
- It has high extinguishing ability since it has a strong discharging ability and this ability can reach such a long distance.
- Since the hose hanger is fixed, it is ensured that the hose and the hose hanger do not get removed. (Patent)

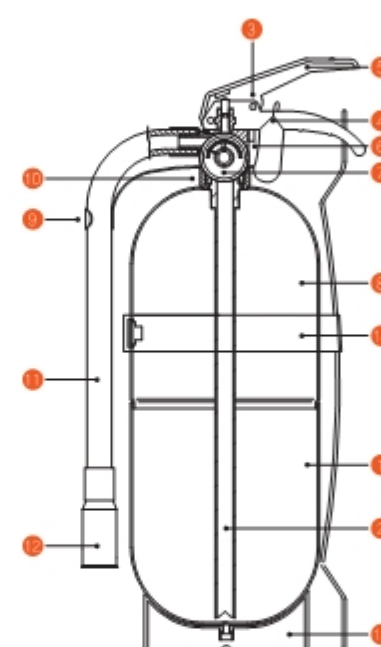
The Compressed Dry Powder Fire Extinguisher from "HANKOOK FIRE FIGHTING EQUIPMENTS" guarantees such excellent extinguishing ability and the perfect after sales service as well. Since there is the Indication Pressure Gage attached, it is very easy to make the walk-around inspection.

Structure of Compressed Dry Powder Fire Extinguisher



Specifications

Form	Ability Unit	Total Weight	Powder Weight	Discharging Time	Discharging Distance	Height	Outer Diameter
Compressive - 0.7kg	A:1 B:1 C:Applicable	1.5kg	0.7kg	10sec	2~3m	309mm	83mm
Compressive - 1.5kg	A:2 B:3 C:Applicable	2.8kg	1.5kg	10sec	4~5m	350mm	125mm
Compressive - 2.5kg	A:2 B:4 C:Applicable	4.0kg	2.5kg	12sec	4~5m	395mm	135mm
Compressive - 3.3kg	A:3 B:5 C:Applicable	5.2kg	3.3kg	12sec	4~5m	450mm	145mm
Compressive - 4.5kg	A:4 B:6 C:Applicable	7.1kg	4.5kg	14sec	5~6m	478mm	150mm
Compressive - 6.5kg	A:5 B:10 C:Applicable	9.9kg	6.5kg	18sec	5~6m	555mm	175mm
Compressive- 20kg	A:10 B:20 C:Applicable	36kg	20kg	33sec	6m	910mm	284mm



- ① Cylinder ② Pipe for discharging the powder
- ③ Safety Pin ④ Sealing String ⑤ Handle
- ⑥ Plug(Head) ⑦ Pressure Indicator
- ⑧ Extinguishing Powder and Nitrogen Gas
- ⑨ Hose Hanger ⑩ Neck ⑪ Hose ⑫ Nozzle (Horn)
- ⑬ Cylinder Support ⑭ Bracket for Vehicle

* Production of the vehicle fire extinguisher

Wet Chemical Stored Pressure Class "K" Kitchen Extinguishers

- Class K – Fires in cooking appliances that involve combustible cooking media(vegetable or animal oils and fats)

Class "K" Kitchen Extinguishers 4 Liter



MODEL	Kfire K-4.0
Type Number	수소 16-24
Capacity	4.0L
Fire Rating	Class A,B,K
Shipping Weight	6.9kg
Discharge Range	3~5m
Discharge Time	60sec
Operating Pressure	0.97Mpa
Operating temperature	-20℃~40℃

Class "K" Kitchen Extinguishers 3 Liter



MODEL	Kfire K-3.0
Type Number	수소 17-46
Capacity	3.0L
Fire Rating	Class A,B,K
Shipping Weight	5.7kg
Discharge Range	3~5m
Discharge Time	52sec
Operating Pressure	0.97Mpa
Operating temperature	-20℃~40℃

KISEN

Smothering + Cooling Effect

KISEN Class "K" Kitchen Extinguishers are designed specifically to fight some of the toughest fires-hot grease, cooking oil and fat fires in the kitchens and food-prep areas of restaurants, convenience stores, food courts, school cafeterias and other facilities.

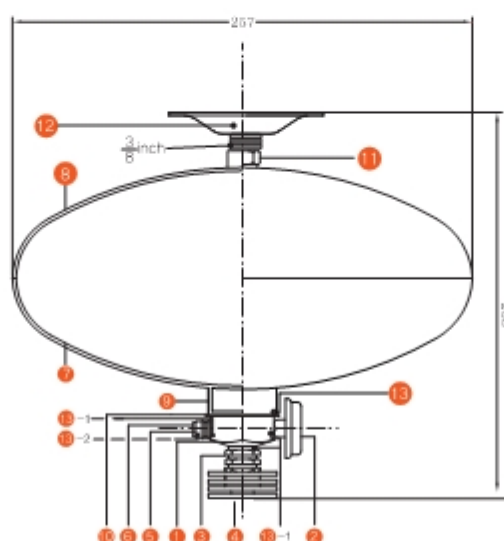
Automatic Diffusion Fire Extinguisher

- Components and Specifications of Automatic Diffusion Fire Extinguishing Equipment

HK-FD30



Structure



Type No.	Diffusion 13-1	72℃
Chemical Weight	3Kg	10 seconds
Charging Pressure	7~9.8kg/cm ²	4.58Kg
Operating Temperature Range	-20~40℃	
Nominal Protection Space	1 m ²	
Type of Fire Extinguishing Performance	for general fire and for fire on electric equipment	

Usage

- ◆ Laundry, Drying Room
- ◆ Boiler Room and Kitchen of Apartment and / or House
- ◆ Kitchen, Machinery Room, and Guest Room of Motel or Hotel
- ◆ Working Room, Substation Room, Machinery Room, and Warehouse of Factory.
- ◆ Guest Room and Machinery Room of Fishing Boat and / or Ship
- ◆ Various kinds of Oil Distributor and / so Storage

Features

- In case of fire, it automatically starts working to extinguish the fire by detecting the heat of 72℃
- No any specific construction to equip is required and it is very easy to install.
- By the pressure indication gauge, working (pressure within the instrument) status can be confirmed by the naked eyes.
- The powder charged are not harmful for human being and domestic animals, Even though it is stained to machine, furniture, clothes, and so on, it can be simply cleaned and removed. (The chief ingredients of the powder : NH₄H₂PO₄)
- Since A. B. C powder are mixed and charged with N₂(Nitrogen), it does not get solidified.

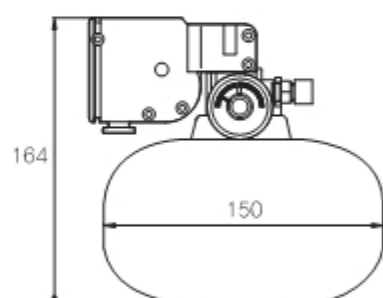
- ① Valve ② Gauge ③ Nozzle ④ Heatproof Plate ⑤ Gas Inlet ⑥ Gas Inlet Plug ⑦ Top Plate of Container
⑧ Bottom Plate of Container ⑨ Neck ⑩ Neck O-ring washer ⑪ Container Fastening Nut
⑫ Ceiling Installation Bracket ⑬ O-ring ⑭-1 O-ring ⑭-2 O-ring

Residential kitchen automatic fire extinguishing system

HK-6500 "Mandatory installation in all the households from Jan. 1, 2008" in accordance with Enforcement Ordinance of Installation and Maintenance of Fire Fighting Facility and Safety Management

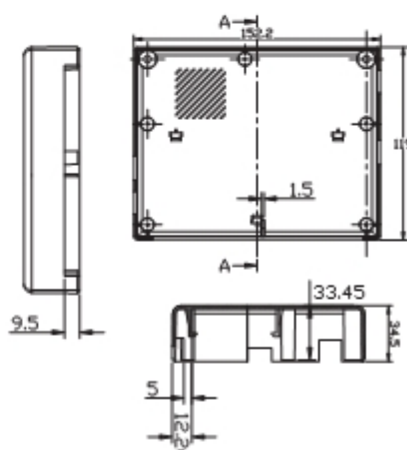
Components and Specifications

Fire Extinguisher HKF-320



How to operate	Fire extinguishing chemical is ejected along with ejection tube, with the pressing pin pressed by operation of the cap linked to a motor
Fire Extinguishing Container	Material KSD 3698/Thickness 1.2t/ Inside Volume 1025ml/Chemical Quantity 0.8ℓ
For pressurization	Working Pressure 0.75~0.98MPa
Gas Container	Instruction Pressure Gauge Pressure Sensing Method Expansion and Contraction Type
Dimension(mm)	150 (W) × 164 (H)
Weight (g)	1900

Reception Part HKC-800



Rated Voltage	AC220V / 60Hz
Power Consumption	140W
Back-up power	Ni-Cd Battery, DC 12V 600mAh
Operating Temperature Range	-10 ~ 40°C
Communication Module	RS-485 is in-built (Option)
Dimension (mm)	153(W) × 116(H) × 38(D)
Weight (g)	700

Control Part HKR-800

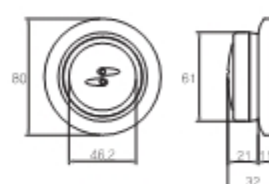


Rated Voltage	DC 12V
Functions	Remote Control and Indication of Functions
Operating Temperature Range	-10 ~ 40°C
Dimension (mm)	122(W)×31(H)×29(D)
Weight (g)	39

Gas Detection Part HKD-800



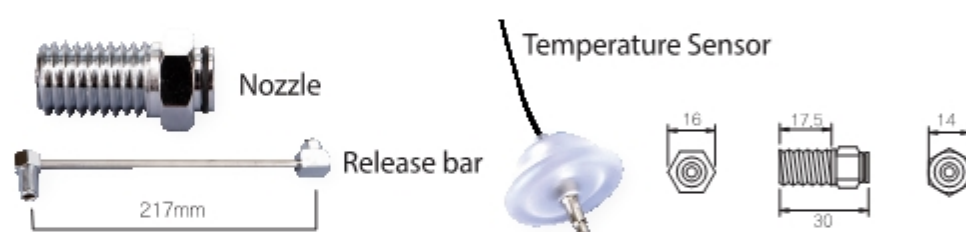
When combined bracket



Rated Voltage	DC 5V / 12V
Applicable Gases	LNG, LPG
Alarming Density	LPG 600~4,500ppm / LNG 600~12,500ppm
Gas Detection Method	Diffusion Type
Gas Detection Element	Catalytic Combustion Method (Instant Type)
Dimension (mm)	61×32(D)
Weight (g)	60

* Caution - When the gas detection part is inspected, the gas for test purpose should be used.

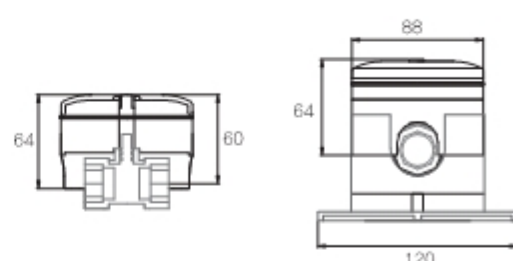
Nozzle & Temperature Sensing Part HKT-300/HKN-200



Primary Sensing Part	Kind : Temperature Sensing Type (Thermistor Type) Nominal Working Temperature : 95°C
Secondary Sensing Part	Kind : Temperature Sensing Type (Thermistor Type) Nominal Working Temperature : 135°C
Spray Nozzle	Discharging Time : 12 seconds Discharging Angle : 80° Nominal Protection Space : 695mm×695mm Effective Installation Height : 500~700mm

Gas Shut-off Device HKS-220 / HKS-615N

Mechanical Type HKS-800



Electronic Type HKS-815T/820T



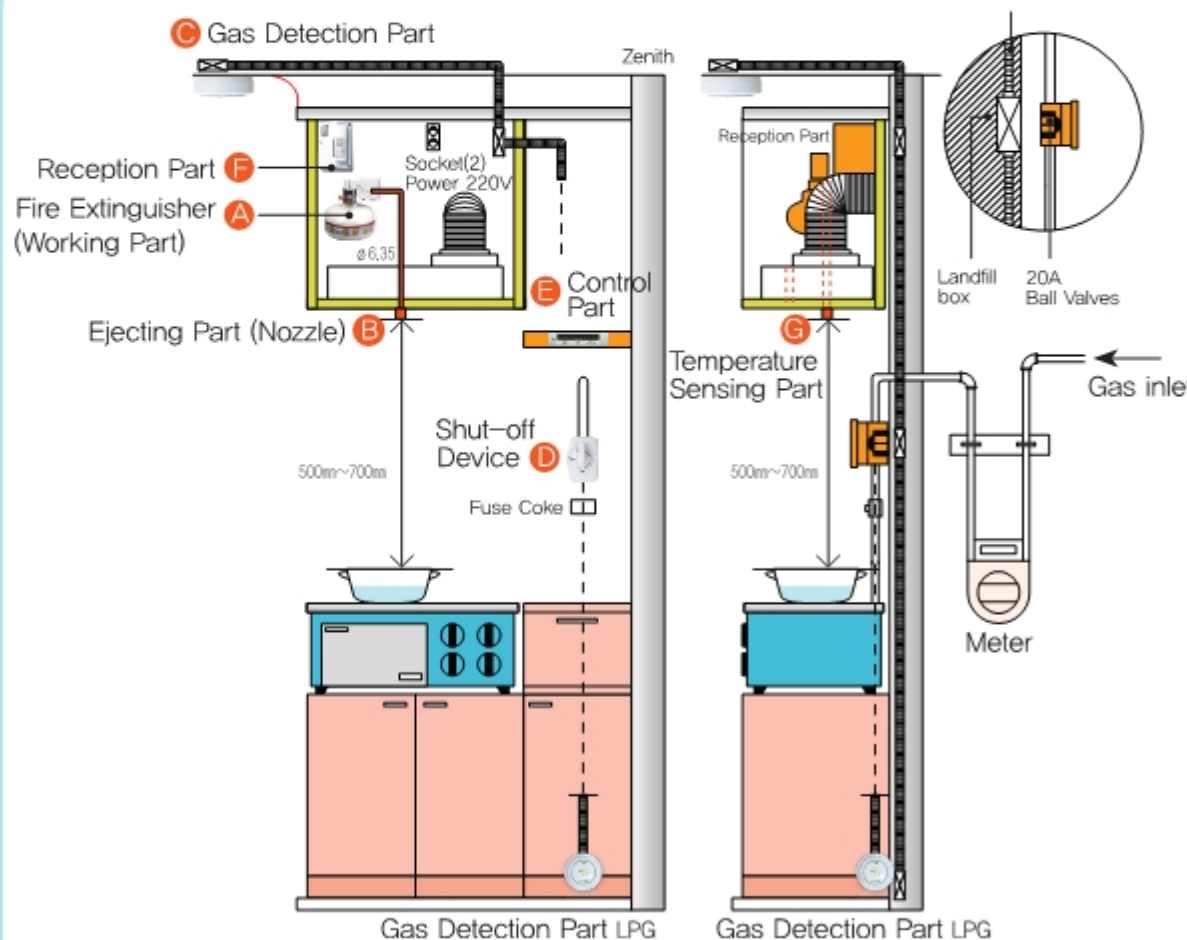
HKS-815T



HKS-820T

Detailed information of the automatic fire extinguishing apparatus for kitchen in the residence

Installation drawing and mounting drawing of the automatic fire extinguishing apparatus for kitchen in the residence



A. Fire Extinguisher (Working Part) B. Ejecting Part (Nozzle) C. Gas Detection Part D. Shut-off Device E. Control Part F. Reception Part G. Temperature Sensing Part

Installation Position of Gas Detection Part

- For LNG : within 30cm from ceiling
- For LPG : within 30cm from floor
- Install the product at the place not nearer than 1m diameter and not farther than 4m diameter from a gas apparatus (gas stove)

Considerations in piping/wiring

- Gas Detection Wire Embedded Pipe PVC duct $\phi 16$ Max. Length 3m Electric wire UTP 4P or more
- Gas Shut-off Wire Embedded Pipe PVC duct $\phi 16$ Max. Length 5m Electric wire UTP 4P or more
- When embedding PVC duct, use dual-outlet socket box.
- Please consult with our company if the installation of longer than maximum length is needed.
- Shut-off device should be installed within 2m from kitchen piping opening and closing valve, in such a way that constant checking can be available.

Installation Position of Nozzle/Temperature Sensing Part

- Install them in accordance with effective installation height and protection space defined in the type approval
- The height of nozzle is 500~700mm
- * Nominal protection space and effective installation height may vary depending on the types.

Smoke alarm

- Smoke alarms save lives. Smoke alarms that are properly installed and maintained play a vital role in reducing fire deaths and injuries. If there is a fire in your home, smoke spreads fast and you need smoke alarms to give you time to get out.



Type	DC 3V, Stand-Alone, Normal, Reusable
Model	HK-SD-100
Power Source	DC 3V Lithium battery 160mA, CR-123A
Energy Consumption	Standby 2.7 μ Ah / Alarm 210 μ Ah
Operating temperature	-10 $^{\circ}$ C~50 $^{\circ}$ C
Sound Output	Smoke Alarm 85db, Battery Replacement 75db

UNDERSTANDING THE INDICATOR LIGHTS

Standby Condition : Red LED flashes once/minute

Alarm Condition(Smoke Initiating)

- Red LED will flash and blink rapidly, repeating horn pattern: 2 beeps
- Repeating on sounding alerts and voice prompts

Silence the Alarm: Press the stop button to silence the sounder during an alarm. after 5 minutes with the red and green LED blink, the sounder and alarm resume if smoke is still present.

NOTE: The red LED on the initiating alarm will flash rapidly. Pressing the stop button, the red LED will be Off on all other non-initiating alarms with green LED blink. No audible sound will be heard.

Recommended Location for Smoke Alarms: in all room, halls, storage areas, finished attics, and basements

Locations to avoid for Smoke Alarms

- Near fresh air vents, ceiling fans, or in very drafty areas. Drafts can blow smoke away from the unit, preventing it from reaching sensing chamber.
- Less than 1m(1000mm) away from fluorescent lights. Electrical "noise" can interfere with the sensor
- install Smoke Alarms as close to the center of the ceiling as possible. If this is not possible, install the Smoke Alarm at least 60cm(600mm) from the wall or corner.

Descending Life Line

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

Slow-descending Device



Armpit Guard
Buffer Rubber
Packing.

If the rubber packings in the both sides of the guard are tightened when the product is used, physical impact to armpits may be alleviated to the minimum level.

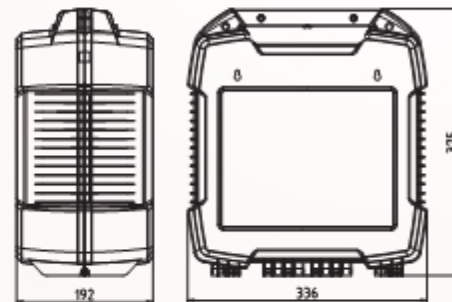
Specifications

Type No.	Wan 14-2-3
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

Standard

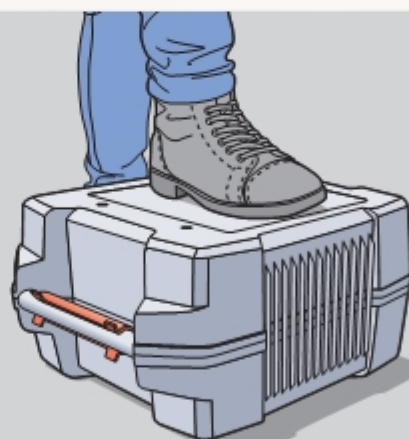
Model	Type	Length(m)	Weight(kg)
HKDD-3	3F	9	3.1
HKDD-4	4F	12	4.35
HKDD-5	5F	15	5.6
HKDD-6	6F	18	6.85
HKDD-7	7F	21	8.1
HKDD-8	8F	24	9.35
HKDD-9	9F	27	10.6
HKDD-10	10F	30	11.85
HKDD-11	11F	33	13.1
HKDD-12	12F	36	14.35
HKDD-13	13F	39	15.6
HKDD-14	14F	42	16.85
HKDD-15	15F	45	18.1

Slow Descending Device Case- For Stepping On



Load tested and confirmed by Korea Conformity Laboratories

Kfire



[Step on for emergency escape]

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

Load test details

the way to trust **KCL** 2289-0321-8485-8485

시험성적서

1. 성적서 번호 : CT15-121908
 2. 의뢰자
 ○ 업체명 : (주)한국소방기구제작소
 ○ 주소 : 대구광역시 서구 영리로29길 33

3. 시험기간 : 2015년 11월 19일 ~ 2015년 11월 26일
 4. 시험성적서의 용도 : 품질관리
 5. 시료명 : 완강기함
 6. 시험방법
 (1) 의뢰자 제시방법

7. 시험결과
 1) 완강기함

시험항목	단위	시험방법	시험결과	비고
인속시험	mm	(1)	19.400	-

▶ 인속시험 - 10 mm/min의 속도로 인속하여 시료 강경시점까지 최대 하중

— 이 문 대 객 —

확인	작성일자	성명	인재명	기술책임자	성명	배상복

비고 : 1. 이 성적서는 의뢰자가 제시한 시료 및 시험방법에 한하여 결과로서 전체제품에 대한 품질을 보증하지는 않습니다.
 2. 이 성적서는 물품, 운반, 포장 및 손상 등으로 사용될 수 없으며, 별도 의뢰에 사용될 수 있습니다.

2015년 11월 26일
 한국건설생활환경시험연구원

기관시험번호 : 005103 서울특별시 강남구 기산디지털로 199 02
 품질경영시스템 인증번호 : (02)2102-2666

제 1889호 제 1889호

참사QP-20-01-05(4)

Descending Life Line

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

■ Slow-descending Device



Armpit Guard
Buffer Rubber
Packing.



If the rubber packings in the both sides of the guard are tightened when the product is used, physical impact to armpits may be alleviated to the minimum level.

■ Specifications

Type No.	Wan 14-2
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

■ Standard

Model	Type	Length(m)	Weight(kg)
HKDD-3	3F	9	3.1
HKDD-4	4F	12	4.35
HKDD-5	5F	15	5.6
HKDD-6	6F	18	6.85
HKDD-7	7F	21	8.1
HKDD-8	8F	24	9.35
HKDD-9	9F	27	10.6
HKDD-10	10F	30	11.85
HKDD-11	11F	33	13.1
HKDD-12	12F	36	14.35
HKDD-13	13F	39	15.6
HKDD-14	14F	42	16.85
HKDD-15	15F	45	18.1



1

Hang the hook to the eyebolt safety.



2

Fasten the belt around the chest.



3

Throw the reel out of the window.



4

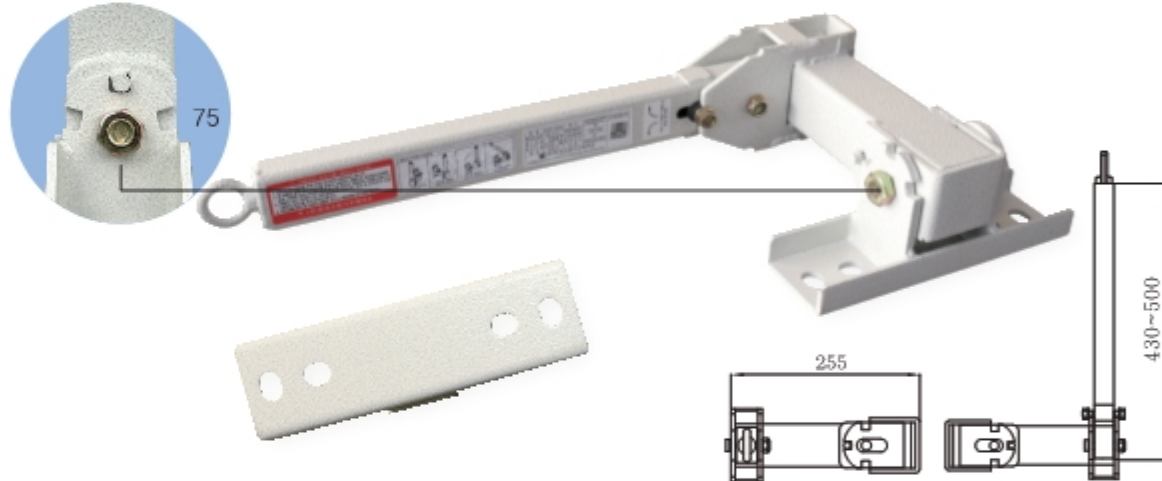
Descend your body facing the wall.

■ Special Feature and Advantages

- The rope is made of flexible and untwisted cotton yarn-covered special air cable to reduce friction during use and to maintain durability.
- The old and weak and children may use it to escape to safety.
- The product is easy to use and descends slowly with no acceleration.
- You can descend safely on your own without any help from others even in narrow places.

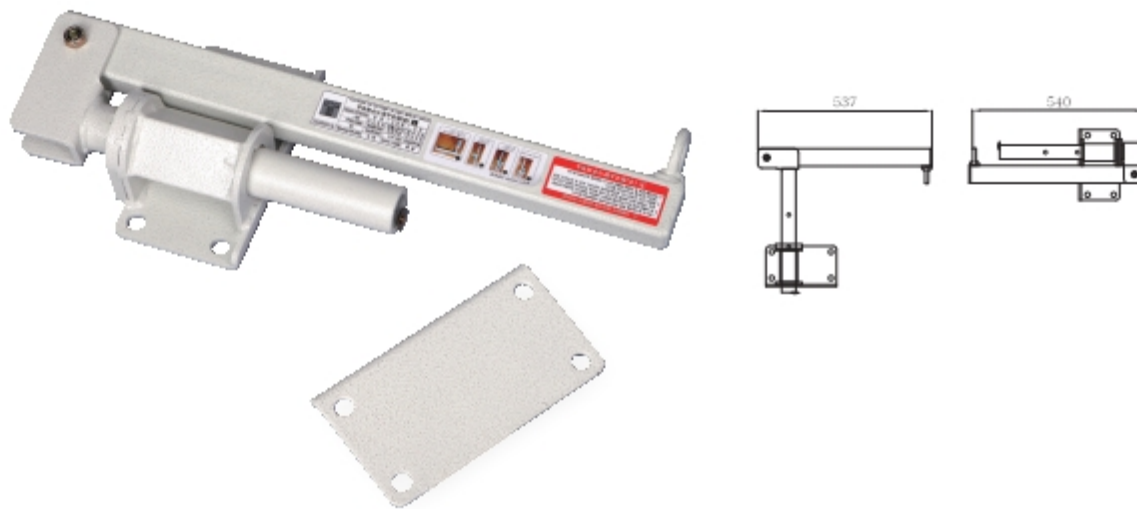
Support

Inside Wall Attachment Type 2-stage Support



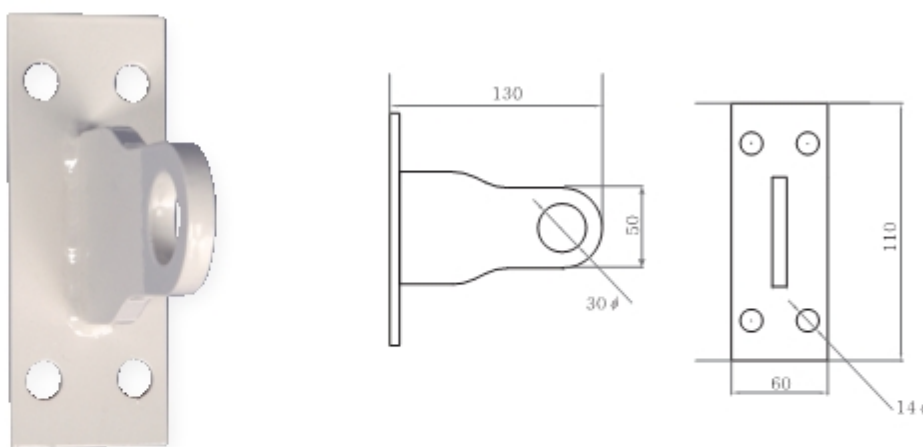
Type	Inside Wall Attachment Type
Type Approval No.	Jiji 16-11-1
Material	KSD 3503(SS400)
Weight	7.2kg
Maximum Number of Users	1person
Maximum Service Weight	150kg
Rotating Angle	150 degree

Lower Wall Attachment Type Support



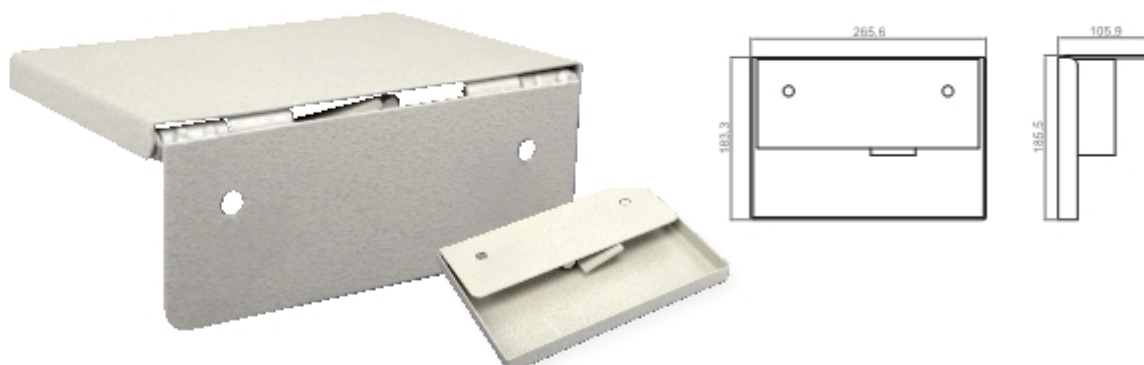
Type	Lower Wall Attachment Type Support
Type Approval No.	Jiji 14-4
Material	KSD 3503(SS400)
Weight	5.87kg
Maximum Number of Users	1person
Maximum Service Weight	150kg
Rotating Angle	360 degree

Outside Wall Attachment Type Support



Type	Outside Wall Attachment Type Support
Type Approval No.	Jiji 15-13
Material	KSD3698 (SUS304)
Weight	0.86Kg
Maximum Number of Users	1person
Maximum Service Weight	150Kg

Foothold of Support



Type	Foothold of Support
Material	KSD3752
Weight	1.76Kg
Maximum Number of Users	1person
Maximum Service Weight	150Kg

Downward Lowering Ladder for Escape

Escape Ladder EG-100

Applied to fire safety apparatuses of evacuation instruments defined by Notification No. 2011-27 dated on Nov. 2011 of National Emergency Management Agency in accordance with Enforcement Ordinance No. 46 of Building Act (Installation of Fire-proof Block)



Ladder Cover

Materials

Classification		Size and Name	Remarks
Storage case	Material	Stainless (Cold rolling SUS304)	Upper 1.5t Main body 1.2t
	STEP spacing	344mm	
Ladder main body	STEP Width	326mm	
	Material	Hot rolling Steel	Zinc galvanizing, Chrome treatment

Size

Forms	Height	Type	Story Height
For apartment External diameter : 655(W)×690(L) Internal diameter : 610(W)×640(L)	210(H)	7 Steps	2,480~2,890
		8 Steps	2,890~3,230
		9 Steps	3,230~3,580
General buildings such as offices and dormitories External diameter : 650(W)×730(L) Internal diameter : 600(W)×680(L)	250(H)	10 Steps	3,580~3,920
		11 Steps	3,920~4,260
		12 Steps	4,260~4,610

- ▶ Type approved and authorized by Korea Fire Industry Technology Institute
- ▶ Qualified in the test by Fire Insurers Laboratories of Korea
- ▶ Outside of hatch 655×690

Product Features and Division of Installation

Double Noise Cancellation

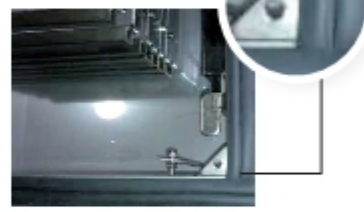
Attach sound absorption material on the top and bottom plate. Sound is absorbed primarily by bottom plate and remaining sound is absorbed secondarily by top plate.



Top plate

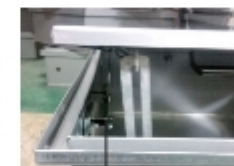
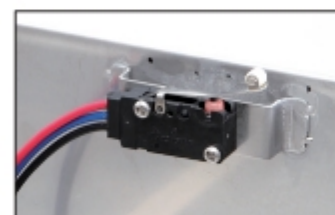


Bottom plate



Shut off noise, absorb impact and prevent water from entering inside of hatch (EPDM)

PRIVACY(Anti-crime, Separated movement of top · bottom plate, Kids lock)



Kids lock

No other tools are needed for emergency escape. Although top plate is opened, inside of the house beneath is not shown. (Warning board and so on may hinder escaping)

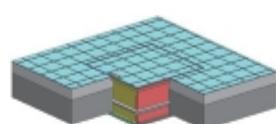


If your press, bottom plate is opened.

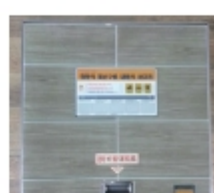
Options - Top part finish / Locking Device

The product is installed with locking device attached in order to prevent invasion of privacy. In case of emergency, press the acrylic at the upper part with a hand, then the acrylic is broken and the opening device button at the lower part is pressed to open the device.

Tile-attached top cover type



Clear-coated top cover type



Locking device



Locking device



Gas Leakage Alarm and Shut-off Device

Gas Leakage Alarm and Shut-off Device HK-S500

Gas Leakage Alarm Device HKA-410



When bracket is jointed

Type	Standalone type	Operating Temperature Range	-20~40℃
Model	HKA-410	Detection Method	Diffusion Method & Catalytic Combustion Method
Power Supply	DC 12V	Applicable Gas	LPG, LNG
Power Consumption	1.7W(Normal Time) / 1.8W(During Alarming)	Alarming Density	LPG 0.05~0.45% LNG 0.05~1.25%
Alarm Output	WHEN ALARMED-DC 12V / Contact Point Signal : NO, NC, COM	Outside Dimension	61Ø×21(D)-without bracket / 80Ø×32(D) with bracket

Control Part HKL-500



Power Supply	220V
Shut-off Part Output	DC 12V
Button Function	Opening, Closing, Return/Stop
Opening & Closing Method	Limit S/W Method
Outside Dimension	79(W)×128(H)×45(D)
Alarm Input	DC 12V
Operating Temperature and Humidity	-10~40℃
Used Shut-off Device	HKS-220
Weight	311g
Communication Function (Linkage)	PLC / RS-485(option)

Shut-off Device HKS-220



Type	Gear operated type
Attachment Type	Ball valve direct tightening
Connection Wiring	CVV or VCT or UTP 2P or TIV 0.5×3c. Control Wire (Connection Wiring for LH : Apply HFIX wire)

Product Configuration



Gas Leakage Alarm Device

Gas Leakage Alarm Device HKA-220



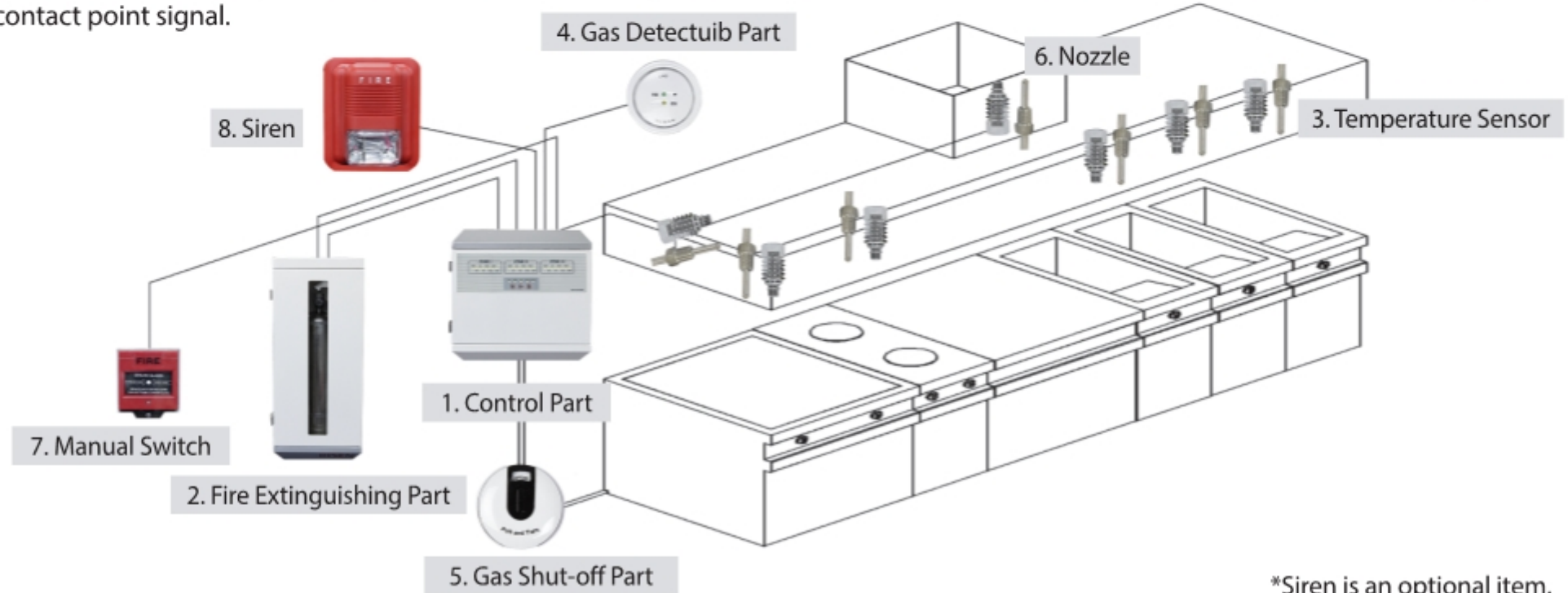
Type	Standalone Type Gas Alarm Device
Model	HKA-220
Power Supply	AC 220V
Power Consumption	2.0W
Alarm Output	WHEN ALARMED-DC 12V / Contact Point Signal : NO, NC, COM
Operating Temperature Range	-20~40℃

Detection Method	Diffusion Method & Catalytic Combustion Method
Applicable Gas	LPG, LNG
Alarming Density	LPG 0.05~0.45% LNG 0.05~1.25%
Outside Dimension	67(W)×105(H)×31(D) with bracket
Weight	196.7g

Automatic Fire Extinguishing Apparatus for Commercial Kitchen

Special Features of KISEN-100, Automatic Fire Extinguishing Apparatus for Commercial Kitchen **KISEN**

1. 3 zones can be controlled with one control part.
2. One zone consists of 1 nozzle and 1 temperature sensor as a basic package. Maximum 5 nozzles and 6 temperature sensors may be installed. 1 fire extinguisher is installed in 1 zone.
3. One-touch type piping is used for connecting the fire extinguisher to the nozzle. The length of the piping can be from minimum 5m to maximum 30m.
4. As additional functions, an alarm function is reinforced by adopting outside siren, and link with other devices is available through contact point signal.



Operating Principle of KISEN-100



1. Outbreak of Fire
2. Sense the set temperature for fire or operate the manual switch
3. Fire signal is transmitted to control part
4. Each function starts working : - Duct damper works - Gas shut-off device works - Motor head of fire extinguisher works
5. Fire extinguishing chemical sprayed - Fire extinguishing starts
6. Omnidirectional fire fighting by the spray nozzle at each position inside/outside of cooking facility

Installation Example of KISEN-100



KISEN

Installation Example of KISEN-100

- ▶ Most of fires in modern restaurants grow larger as many high temperature fire facilities and inflammables such as cooking oil are used there. And as many people go in and out of the restaurants, a fire is likely to result in loss of life.
- ▶ Recently, if a big fire breaks in a restaurant, which leads to damages, the restaurant suffers secondary intangible damage such as falling of its image as well as direct loss due to suspension of business. So our perception of fire safety need to be changed.
- ▶ In America and Europe, restaurants have adopted commercial automatic fire fighting systems in the kitchen since long time ago, and have got practical effects.
- ▶ We need to detect and extinguish fires at the early stage of outbreak. Kisen-100 may minimize tangible and intangible property losses by providing customers with the fire fighting equipment optimized to their facilities.

Automatic Fire Extinguishing Apparatus for Commercial Kitchen

Detail Specifications of KISEN-100

KISEN

Control Part KC-100



Item	Specification
Material	Steel or SUS
Available Temperature Setting Range	0°C~999°C
Setting Zone (per 1 control part)	Max. 3 zones can be set
Installation quantities of devices (per 1 control part)	Fire extinguisher : 1 per each zone Nozzle : Max. 5 per each zone Temperature Sensor : Max. 6 per each zone
Size	700×700×200
Operating Temperature Range	-20°C~40°C

Temperature Sensor KT100



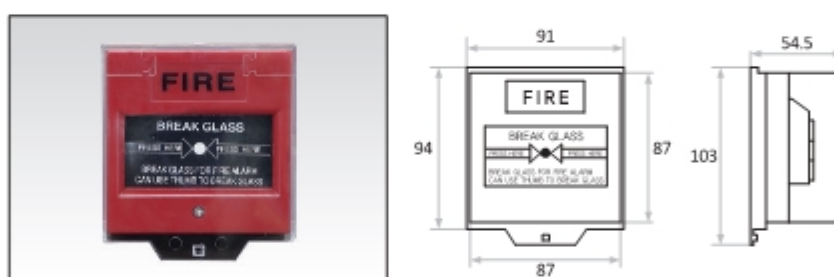
Item	Specification
Sensing Method	Temperature Sensor Type (THERMISTOR Type)
Primary Sensing Temperature	90°C (Setting is possible)
Secondary Sensing Temperature	130°C (Setting is possible)
Operating Range	0~300°C

Gas Shut-off Part KS100



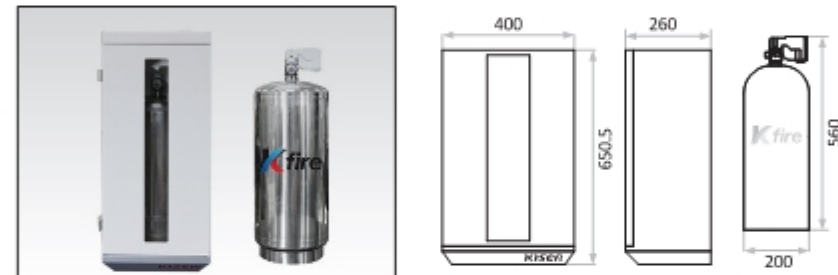
Item	Specification	Item	Specification
Shut-off Method	Gear-operated Method	Driving Control Method	Motor Driven, Limit S/W Method
Shut-off Speed	within 8 seconds	Operating Temperature Range	-20°C~40°C
Shut-off Touque	65kgf.cm	Operating Voltage	DC12V / DC24V
Durability	6,000 times or more	Specification	20A / 40A

Manual Switch KMSW100



Item	Specification
Driving Method	Contact Point Method
Operating Temperature	-10°C~50°C
Material	Fire Retardant ABS

Fire Extinguishing Part KF-110



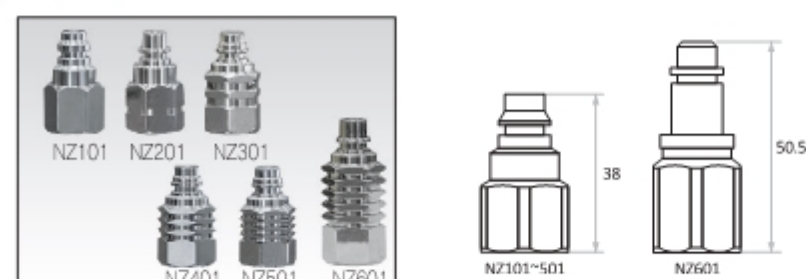
Item	Specification	Item	Specification
Material	KSD 3698, Thickness 1.2T	Starting Method	Motor-started opening method
Dimension	Ø200×587mm	Main Ingredient of Fire Extinguishing Chemical	Potassium Carbonate (K2CO3, reinforced liquid)
Inside Volume	about 13.5ℓ	Ejection Time	60 seconds
Pressurization Method	Nitrogen Compression Method	Operating Temperature Range	-20°C~40°C
Charging Pressure	9.8kg/cm²		

Gas Detection Part KD100



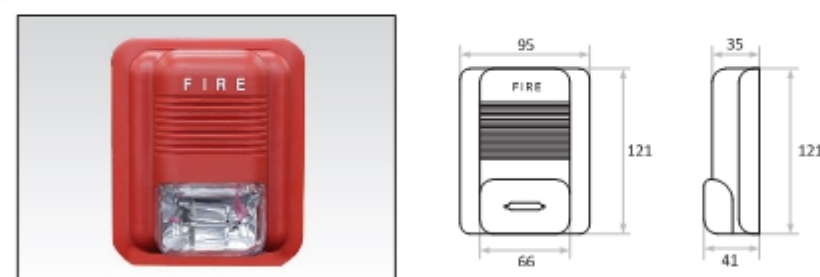
Item	Specification
Detection Method	Catalytic Combustion Method
Detectable Gas	LNG, LPG
Detectable Concentration	LPG 600~4500ppm, LNG 600~12,500ppm
Gas Detection Method	Diffusion Method
Operating Range	-20°C~40°C

Nozzle KNZ100SET



Item	Specification					
Nozzle No.	NZ101	NZ201	NZ301	NZ401	NZ501	NZ601
Ejection Time	60sec	60sec	60sec	60sec	60sec	60sec
Ejection Amount	2229g	3115g	2245g	2822g	994g	3506g
Ejection Angle	45°	80°	45°	45°	30°	80°
Installed Devices	Duct	Range	Fryer/PLENUM	Replacement fuel/ Roasting Device	Sun Grill	Fryer/Cooking Steel Plate
Material	Copper Alloy/Chrome-Coated					

Siren KISEN-KES100



Item	Specification	Item	Specification
Dimension	134mm×115mm×48mm	Flashing Interval	about 1.5 seconds
Operating Voltage	DC 24V	Flash Life	about 30,000 hours
Audio Alarm	90~100dB	Distance between installation fixing holes	65mm
Flash Alarm	1.2WS		*Siren is an optional item.

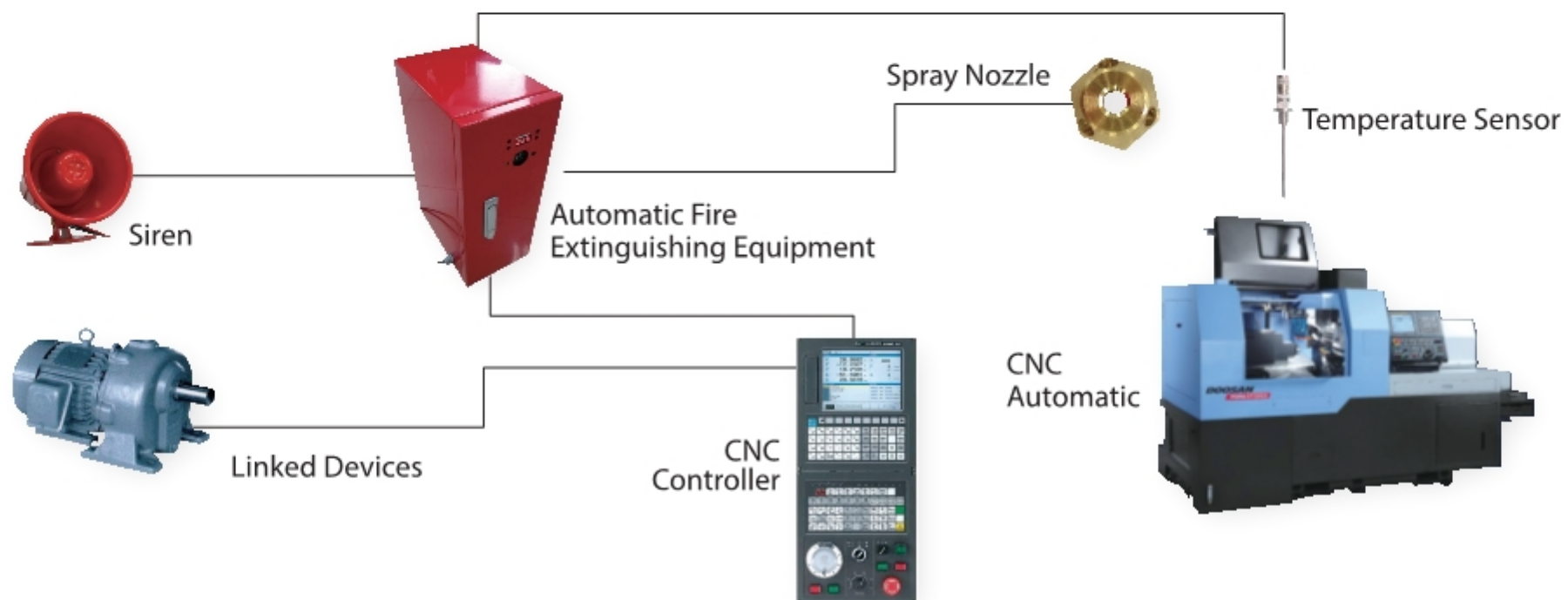
CNC Automatic Fire Extinguishing Equipment

Product Overview

Automatic Fire Extinguishing Equipment (Temperature Sensor Type, For Automatic Lathe)

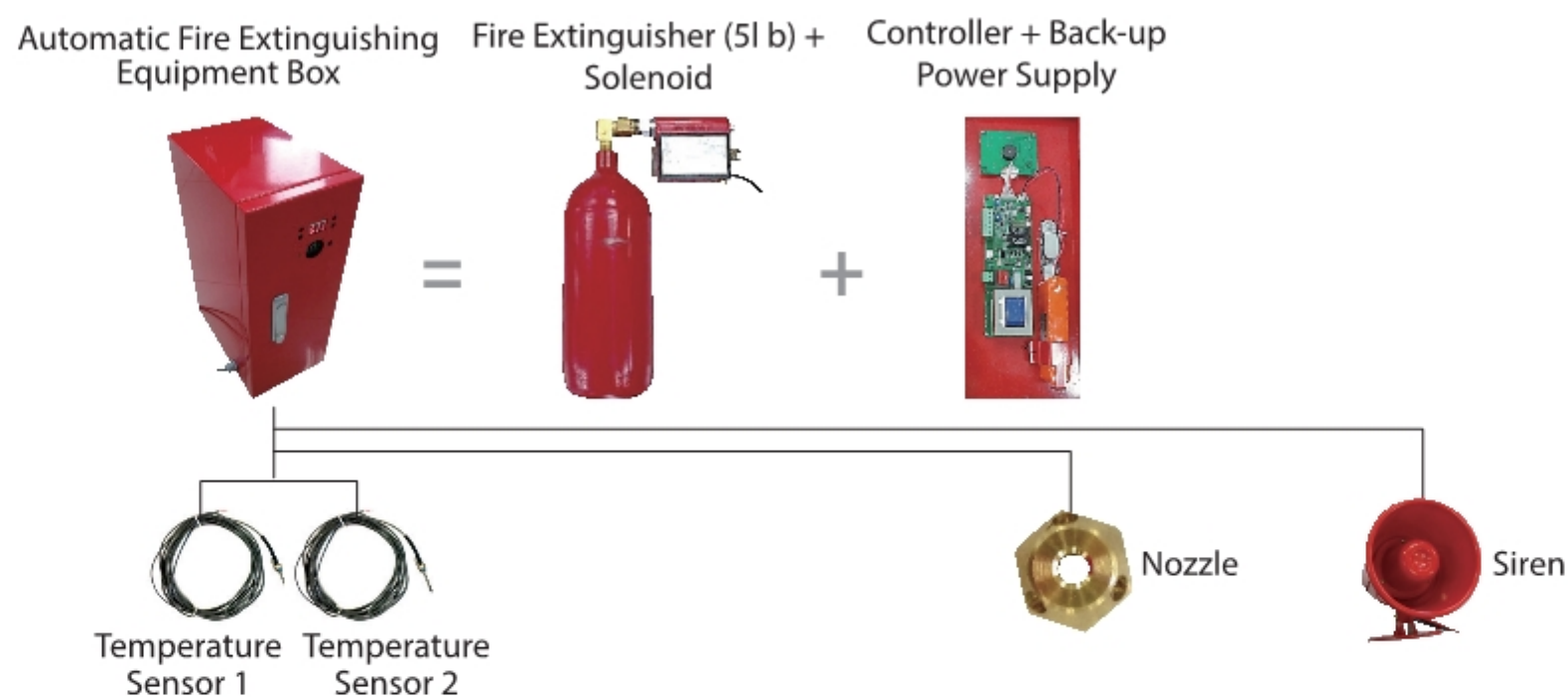
Install temperature sensors at the places of potential fire outbreak. If a sensor detects the temperature going up beyond the set temperature, it transmits a fire signal to automatic fire extinguishing equipment, and the automatic fire extinguishing equipment sends the fire signal to CNC controller of the automatic lathe.

The CNC controller of the automatic lathe enables working or stopping of linked devices and power shut-off, and quickly extinguishes fire at the early stage of outbreak by spraying fire extinguishing agent through spray nozzles.

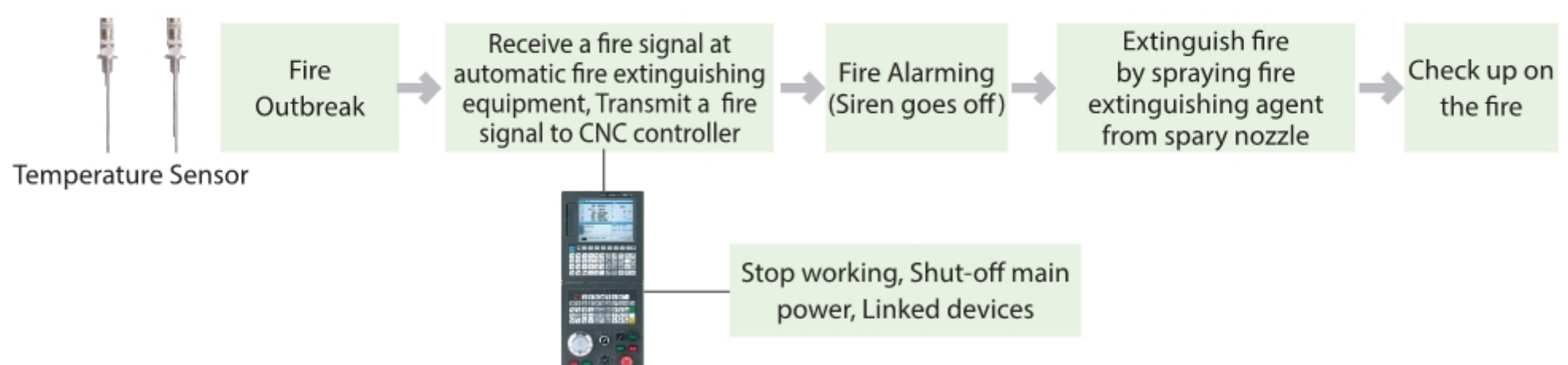


Structure and Way of Operation of Automatic Fire Extinguishing Equipment

Configuring automatic fire extinguishing system



Operational Sequence of Automatic Fire Extinguishing Equipment



Spray Type Fire Extinguisher K-Spray

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

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

Efficiency

Safety

Capacity



Model	K Spray
Preservation Period	2year (0~40℃)
Discharge Range	1m~5m
Discharge Time	25 seconds
Uses.	Immediate response to oil and fabric material fire accident.
Material Specification	Wet Chemical 427nl, Total eight 612g

▼ Components



- It is very effective in cooking oil fire.
- Initial response to home fire.
- Hot or Cold, effective in every season
- Regular inspection is not required.
- It can be used semi-permanent
- There will be no sight interruption because it is liquid chemical based not dry powder.

Throwing Fire Extinguisher K-Shot

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

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

Efficiency

Safety

Capacity



Model	K-Shot
Preservation Period	2year (-20℃ ~ 45℃)
Marks	Wet Chemical based. Does not create 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)



You can secure safety if you meet Hankook Fire Fighting Equipments Co., Ltd.
www.koreafire.com



Hankook Fire Fighting Equipments Co., Ltd.

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