

PRESENTER:

POSITION:

PROFESSION:

PHONE:

E-MAIL:

info@hafex.com.tr

info@ohprotection.com

info@ygyangin.com

UFUK CAN GÜNAYDIN

CEO

FIRE ENGINEER

+90 5465002405



YG Yangın Güvenliği
San. ve Dış Tic. Ltd. Şti.



HAFEX®

HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS

www.ygyangin.com • www.hafex.com.tr • www.superfireball.com





- As YG YANGIN GUVENLIGI San. ve Dıs. Tic. Ltd. Sti. We are established in 2010, and we have been in the fire and safety sector since 2005 for public and private institute projects rather than retail business. Therefore, we became a manufacturer of Super Fire Ball and Portable Aerosol Fire Extinguishers on May 2017.
- We now have expanded our technology and created HAFEX (Hybrid Aerosol Fire Extinguishing Systems) with our partner company SGS in 2019.
- Now, our company provides the best quality with the latest technology for fire extinguishing systems both in short and long term aspects of fire protection.
- Besides, we are the only company in the world that manufactures fire ball that can be integrated with any fire extinguishing panel and/or a manual release button which provides another activation method for better detection and extinguishing res. In addition, only we provide Fire Balls for D Class Fires.
- We are a Defense Industry approved manufacturer and supplier.
- It is a solution partner with Vodafone and specially produces Strontium nitrate based aerosol gas fire suppression system to use in 4G and 5G base stations. We own more than 28 trademark patents and more than 10 product and technology patents / utility models.
- Our company is one of the foremost fire suppression system manufacturers in Turkey. We have Distributors in 18 different countries and 6 provinces across Turkey. We serve with our marketing and installation teams to all parts of Turkey and offers a high-tech services to many countries in the world.
- For years, it has successfully undertaken the task of promoting domestic production in importing companies in the domestic sector.

HAFEX[®]
HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS

SGS
Siyah Güvenlik Sistemleri



PLEASE CLICK TO WATCH

➤ <https://www.youtube.com/watch?v=iDXHpOGJmlc>

HAFEX[®]
HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS





Patent / Utility Model and Trademark Registrations of Our Company

Our company, which attaches importance to Utility Model and Branding, has the following registered patent / utility model and trademark registrations.

Number 2014/15159; Fixed and portable fire extinguisher system capable of moving in all directions, having ignition system.

Number 2014/14730; Fire extinguisher with ignition system.

Number 2014/14376; Fire extinguishing system with missile.

Number 2014/10569; New generation fire extinguishing automation system.

Number 2014/10387; Aerosol fire extinguisher.

No. 2014/02497; Portable, easy-to-use fire extinguisher

No. 2014/01752; Automatic fire extinguisher.

No. 2014/01436; Portable fire extinguisher.

Of these patents 2014/01752; With its automatic fire extinguisher, it won the 3rd place bronze medal in ISIF'17 (International Inventions Fair) worldwide.

It also holds 24 Trademark Registrations.





TECHNOLOGY

HAFEX[®]
HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS

DESIGN

SOFTWARE

MECHANIC

CHEMICAL

ELECTRONIC

Note: Business lines whose design, production and related infrastructure R&D processes belongs to us

- Advanced Technology Fire Extinguishers and Systems
- Chemical Production With Fire Extinguisher Feature
- Heat Detection Modules
- Fire Extinguishing System Control Modules
- Auxiliary Electronic Equipment Required in Fire Extinguishing System



Automatic & Portable Fire Extinguishers

SUPER FIRE BALL[®]



PFE-1



PFE-3





SUPER FIRE BALL®

“The only fire ball in the World which can be activated by electricity”

%100 Domestic Turkish Product



TECHNICAL INFORMATION

SIZE	14.5 cm Ø
WEIGHT	1.3kg ± %10
CLASSES OF FIRE	A, B, C, ve Electrical Fires (D class Optional)
EXTINGUISHING CAPACITY	8 m ³
SHELF LIFE	5 years
EXTINGUISHING AGENT	Boron Peroxide Component DCP (ABC class, D class Optional)
ACTIVATION METHODS	Automatic (Fire Contact and/or Electrical connection),
COLOUR	RED
CERTIFICATES	TSEK-39 , EFECTIS ERA
ACCREDITED BODIES	TSI (TURKISH STANDARDS INSTITUTION), EFECTIS ERA

EFFECTIS ERA LABORATORIES TSEK-39 TEST VIDEO

- <https://www.youtube.com/watch?v=OmDG5UDNofY>





HOW DOES THE FIRE BALL CAN BE TESTED UNDER TSEK39 ?

TS / EN No:	Standard Specifications
TS 4087	Sawn timber- Determination of the average moisture content
TS 2993	Ignition core
TS EN 2	Classification of fires (CLASS A, B, C)
TS 862-7 EN 3-7	Portable fire extinguishers - Part 7: Characteristics, performance requirements and test methods
TS EN 615	Fire protection-Fire extinguishing media- Specifications for powders (other than class D powders)
TS EN 10056-1:2006	Structural steel equal and unequal leg angles - Part 1: Dimensions
TS EN 14934	Thermal insulation and light weight fill products for civil engineering applications - Factory made products of extruded polystyrene foam (XPS) - Specification
TS EN ISO/IEC 17025	General requirements for the competence of testing and calibration laboratories

- In Other words we have looked at in the TSEK-39 Standard Tests;
 - ✓ Surfaces
 - ✓ Thermal resistance
 - ✓ Explosion severity/resistance
 - ✓ Sound level
 - ✓ Compressive strength/ pressure resistance
 - ✓ Drop/Crash resistance
 - ✓ Fire performance (5A , 55B) TS 862-7 EN 3-7, TS 4087, TS EN 100056-1.
 - ✓ Dimensions and tolerances

SCOPE OF OPERATION



- **Energy**

- System and Control Rooms
- Transformer Centers & Battery Rooms
- Power and Generator Rooms
- Distribution and Control Rooms
- Electrical Panels and Cabinets
- Wind Turbines



- **Construction**

- Note: In addition to other relevant fields.



- Storage and Archive Areas
- (Military, Chemical, Metal, Fuel etc.)



- **Production**

- Machines and Control Panels
- CNC machines and used in production
- Automatic / manual working machines.



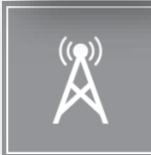
- **Defense industry**

- Note: The business areas involved according to Fire Safety



- **Communication/Telecom**

- 4G and 5G Base Stations
- Data Sub-Stations



- **Marine**

- Engine Rooms and Energy Distribution Panels



- **Vehicles and Logistics**

- Logistic centers
- Trailers and other construction vehicles.
- Railways



REFERENCES IN TURKEY

MINISTRY OF NATIONAL DEFENSE - BUILDING MANAGEMENT USAGE AREAS



GENERALCOMMAND- ANKARA ALL ELECTRIC PANELS



TURKISH ARMY GENERAL LAND FORCES HEADQUARTERS GENERAL PURCHASE



MARINE FORCES GENERAL DIRECTORATE OF SHIPYARD GÖLCÜK - İSTANBUL AND OTHER SHIPYARD, CLASS SHIPS AND MODERNIZATION



JANDARMA GENERAL CAP. LOGISTICS COMMAND GENERAL USE- VEHICLE MAINTENANCE FACTORY - ALL WEAPON SYSTEMS - OPTIC - ALL FACTORY



COAST GUARD COMMAND - ISTANBUL, BODRUM SYSTEM ROOMS



MIT - ANKARA AND ISTANBUL SYSTEM ROOMS GENERAL USE



GENERAL DIRECTORATE OF SECURITY

DEPARTMENT OF SECURITY



SPECIAL OPERATION DIRECTORATE



DEPARTMENT OF FIGHTING WITH DRUGS



DEPARTMENT OF COMBATING CYBER CRIME



REFERENCES IN TURKEY



TURKEY MINISTRY OF HEALTH GENERAL HOSPITAL - CITY HOSPITALS - FIELD HOSPITAL PROJECTS (F)
Murat Dilmener HOSPITAL EMERGENCY, EMERGENCY HOSPITAL PROFESSOR FERİHA SELF)



MINISTRY OF CULTURE TOURISM - BODRUM CASTLE - DİYARBAKIR SUR MUSEUMS



AFAD- PRESIDENTIAL BUILDING GENERAL USE

ANKARA METROPOLITAN MUNICIPALITY EGO - ANKARA METRO ALL STATIONS AND SYSTEM ROOM



THE ISTANBUL METROPOLITAN MUNICIPALITY

ISTANBUL CHAMBER OF INDUSTRY SERVICE BUILDING ALL SYSTEM AND LECTRIC ROOMS



TCDD GENERAL DIRECTORATE BUILDING ARCHIVES

TCDD 2nd REGIONAL FACILITIES DIRECTORATE SYSTEM ROOMS OF STATIONS IN ALL PROVINCES -
BATTERY ROOMS - REGIONAL SERVICE BUILDING SYSTEM ROOMS - ANKARA STATION-ELECTRIC
ROOMS AND PANELS



REFERENCES IN TURKEY



- CENTRAL BANK GENERAL DIRECTORATE ELECTRIC ROOMS - ART ROOMS - DARPHANE SYSTEM ROOM



ARCHIVES OF DEED KADASTRO GENERAL DIRECTORATE ISTANBUL, ANKARA AND MANY PROVINCIAL DIRECTORS



İSPARK - İSPARK - İSFALT SYSTEM ROOMS - GENERAL USAGE



TRT ISTANBUL TV. ALL BUILDINGS GENERAL USE

DEFENSE INDUSTRY AND ENERGY LOCOMOTIVES OF OUR COUNTRY



ASELSAN - BOTAŞ SYSTEM ROOMS CONTAINERS - JEMUS PROJECT



HAVELSAN - AIR RADAR SYSTEM ROOMS



ROKETSAN - GENERAL BUILDING



TEİAŞ - TEDAŞ ALL ENTERPRISES GENERAL USE SYSTEM ROOMS



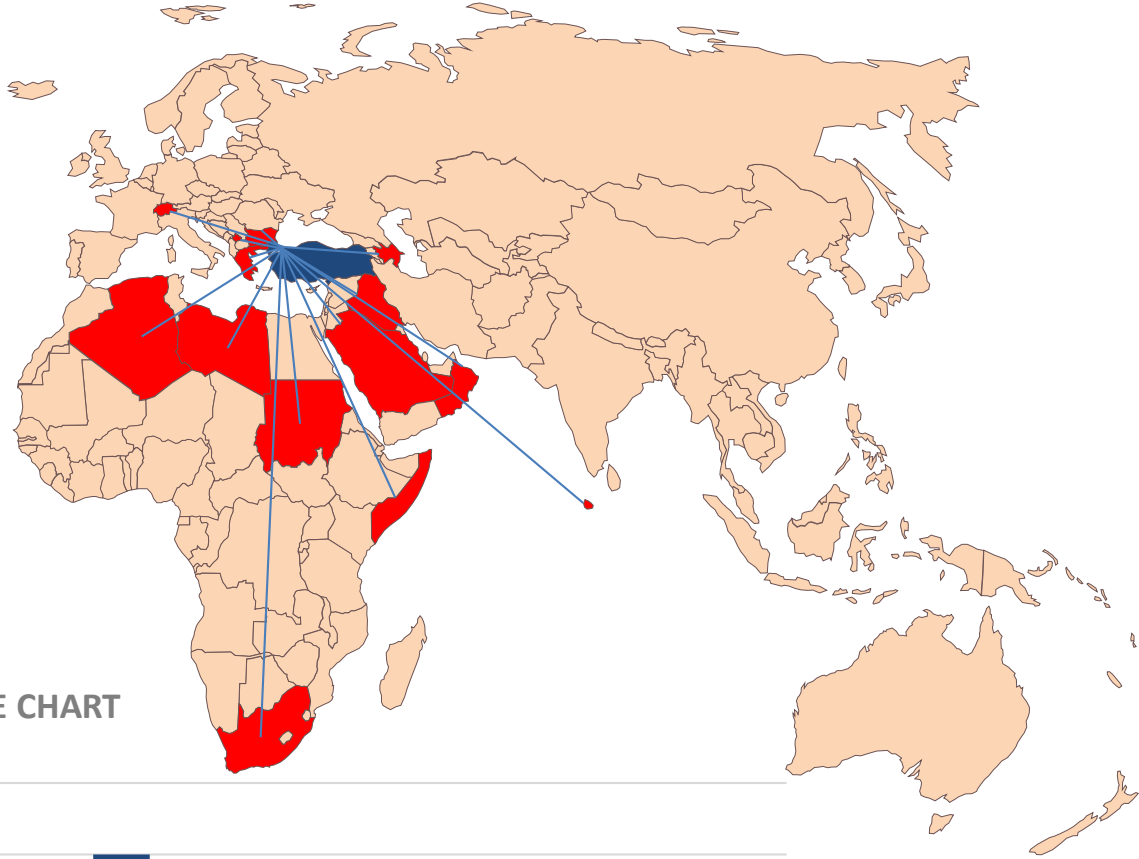
vodafone

VODAFONE - ALL 4G and 5G BASE STATIONS

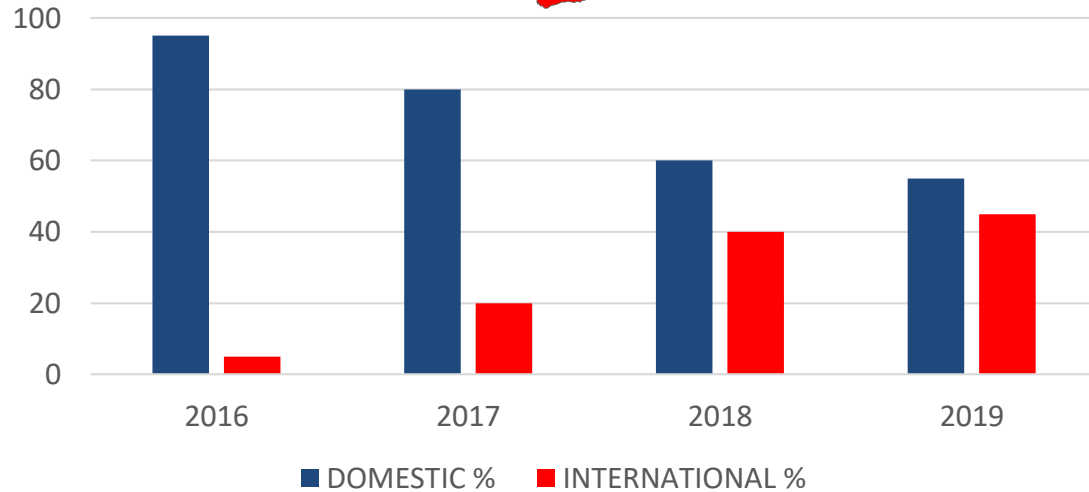
YG YANGIN GÜVENLİĞİ İHRACAT HARİTASI

DISTRIBUTOR COUNTRIES

- Azerbaijan
- Libya
- Algeria
- Iraq
- Saudi Arabia
- Oman**
- Sudan
- Somalia
- South Africa
- Switzerland
- Greece
- Kosovo
- Bulgaria
- Maldive Islands
- 2020(new dst.)**
- Costa Rica
- Mexico
- Sweden
- Norway



2016-2019 INCOME CHART



THE FIRST AND THE ONLY TURKISH AEROSOL FIRE EXTINGUISHING SYSTEM

- Fire extinguishing technology in accordance with international standards with 16 different models in closed volumes.
- It is ahead of its competitors with its 3 different patented chemical formulas and solid production process.
- It has obtained the TS ISO 15779: 2016 certificate together with the tests performed in TSE laboratories in accordance with ISO 15779: 2011, the most comprehensive European Standard written for international aerosol gas fire extinguishing systems.

HAFEX®

HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS



YG YANGIN GÜVENLİĞİ, with its HAFEX products, received a domestic fire extinguishing system type approval for the first time, on behalf of both our country and the TSE, with the vehicle type approval in accordance with the UN ECE-R107 regulation.



TS ISO 15779



UNECE - R107



Type Approval No : 107 R – 08 0001



HAFEX[®]
HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS

UN ECE R107 HIGH LOAD FIRE WITH FAN TEST

<https://youtu.be/RcudFm6ooMA>

CHEMICAL

POTASSIUM NITRATE

K TYPE

K+S TYPE

STRONTIUM NITRATE

S TYPE

FIRE EXTINGUISHING APPLICATION DENSITY = 100gr/m^3

Note: For A Class Fires

FIRE EXTINGUISHING APPLICATION DENSITY = 176gr/m^3

Note: For A Class Fires

Environment \leq %90 Humidity = %0 Corrosivity

Environment \geq %100 Humidity = %0 Corrosivity



K TYPE UNITS

MINI HAFEX UNITS



HFX-50 HFX-100 HFX-200 HFX-500



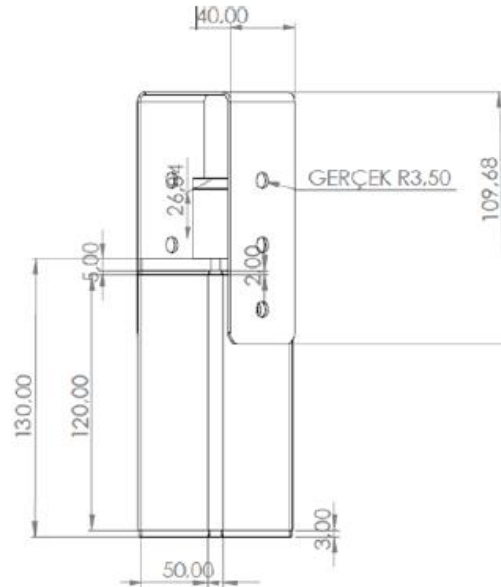
GRAND HAFEX UNITS



HFX-1100 HFX-2200 HFX-3400 HFX-4500 HFX-6000



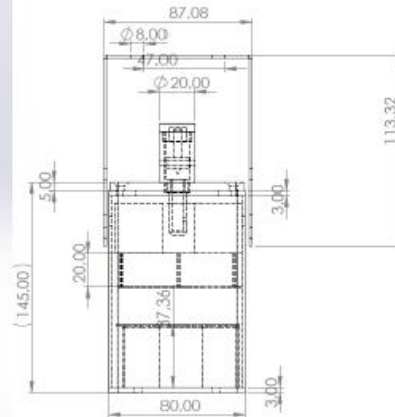
MODEL NO:	HFX-50
GROSS WEIGHT:	830 gr \pm 5
CHEMICAL WEIGHT:	50 gr.
COOLING SECTION WEIGHT:	100 gr. (PRP:%99 Al ₂ O ₃ , 6mm \varnothing Melting Point 2050°C)
HIGH TEMPERATURE INSULATION FELT:	5 pcs. 3mm(d),(1300°C)
DIMENSIONS:	50 x 50 x 130 (in mm)
MARKING METHOD:	Screen Printing(Serigraph)
LABELLING:	Model No : Seri No : Manufacturing Date : Expiry Date :
CASING MATERIAL:	POLISHED SS 304
CERTIFICATES:	TS ISO 15779:2016



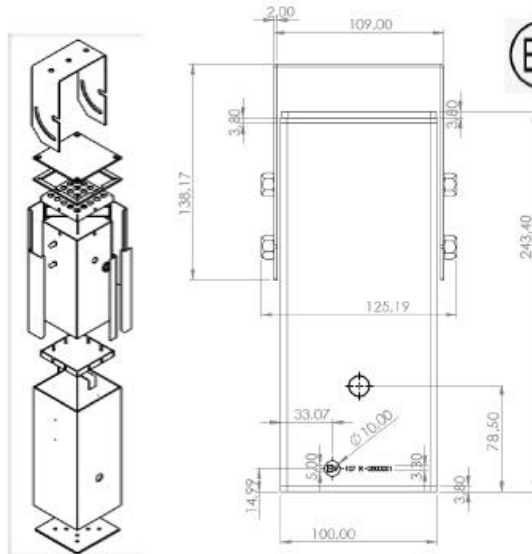
MODEL NO:	HFX-100
GROSS WEIGHT:	1330 gr ±%4
CHEMICAL WEIGHT:	100 gr. KNO ₃ POTASSIUM NITRATE
COOLING SECTION WEIGHT:	200 gr. ±%5
	(PRP:%99 Al ₂ O ₃ , 6mm Ø Melting Point 2050 °C)
HIGH TEMPERATURE INSULATION FELT:	5 pcs. 3mm(d),(1300 °C)
DIMENSIONS:	80 x 80 x 113 (in mm)
MARKING METHOD:	Screen Printing(Serigraph)
LABELLING:	Model No : Seri No : Manufacturing Date : Expiry Date :
CASING MATERIAL:	POLISHED SS 304
CERTIFICATES:	TS ISO 15779:2016 UN ECE R107



MODEL NO:	HFX-200
GROSS WEIGHT:	1830 gr ±%4
CHEMICAL WEIGHT:	200 gr. KNO ₃ POTASSIUM NITRATE
COOLING SECTION WEIGHT:	400 gr. ±%5
	(PRP:%99 Al ₂ O ₃ , 10mm Ø Melting Point 2050 °C)
HIGH TEMPERATURE INSULATION FELT:	5 pcs. 3mm(d),(1300 °C)
DIMENSIONS:	80 x 80 x 147 (in mm)
MARKING METHOD:	Screen Printing(Serigraph)
LABELLING:	Model No : Seri No : Manufacturing Date : Expiry Date :
CASING MATERIAL:	POLISHED SS 304
CERTIFICATES:	TS ISO 15779:2016



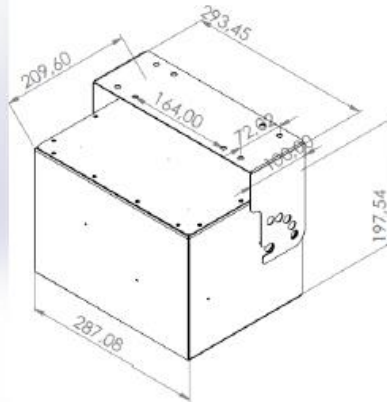
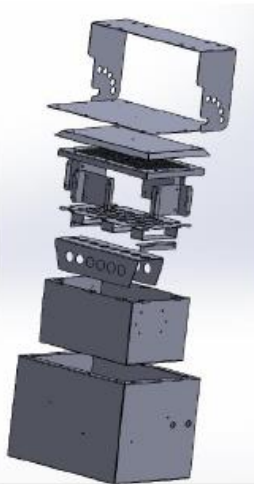
MODEL NO:	HFX-500
GROSS WEIGHT:	4560 gr. ±%2
CHEMICAL WEIGHT:	500 gr. KNO ₃ POTASSIUM NITRATE
COOLING SECTION WEIGHT:	1000 gr. ±%5
	(PRP:%99 Al ₂ O ₃ , 16mm Ø Melting Point 2050 °C)
HIGH TEMPERATURE INSULATION FELT:	5 pcs. 3mm(d),(1300 °C)
DIMENSIONS:	100 x 100 x 243 (in mm)
MARKING METHOD:	Screen Printing(Serigraph)
LABELLING:	Model No : Seri No : Manufacturing Date : Expiry Date :
CASING MATERIAL:	POLISHED SS 304
CERTIFICATES:	ISO 15779 UN ECE R107



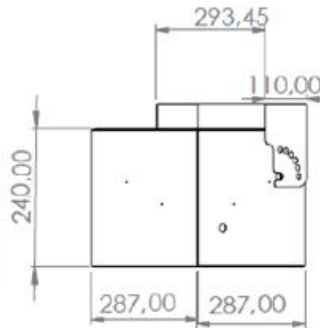
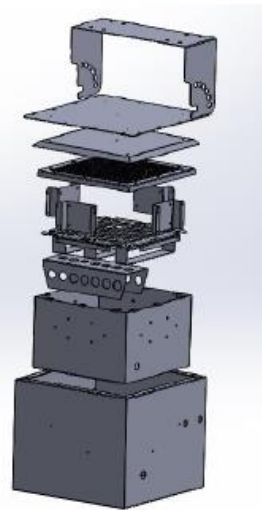
E37 107 R - 080001



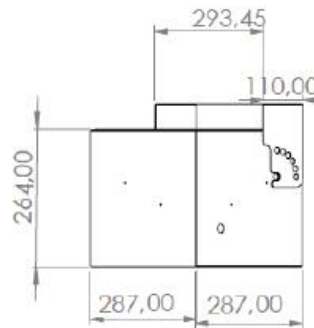
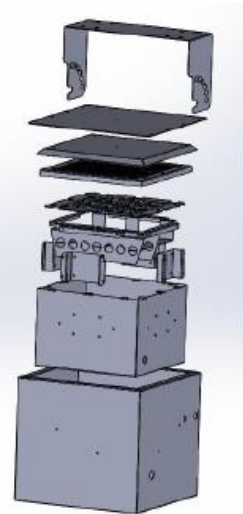
MODEL NO:	HFX-1100
GROSS WEIGHT:	10300 gr. ±%2
CHEMICAL WEIGHT:	1100 gr. KNO ₃ POTASSIUM NITRATE
COOLING SECTION WEIGHT:	2200 gr. ±%5 (PRP:%99 Al ₂ O ₃ , 16mm Ø Melting Point 2050° C)
HIGH TEMPERATURE INSULATION FELT:	5 pcs. 1mm(d),(1400° C)
DIMENSIONS:	211 x 287 x 200 (in mm)
MARKING METHOD:	Screen Printing(Serigraph)
LABELLING:	Model No : Seri No : Manufacturing Date : Expiry Date :
CASING MATERIAL:	PAINTED RAL 3001 STEEL 1.5mm(thickness)
CERTIFICATES:	TS ISO 15779:2016



MODEL NO:	HFX-2200
GROSS WEIGHT:	18000 gr. ±%2
CHEMICAL WEIGHT:	2200 gr. KNO ₃ POTASSIUM NITRATE
COOLING SECTION WEIGHT:	4400 gr. ±%5 (PRP:%99 Al ₂ O ₃ , 16mm Ø Melting Point 2050°C)
HIGH TEMPERATURE INSULATION FELT:	5 pcs. 3mm(d),(1300°C)
DIMENSIONS:	287 x 287 x 240 (in mm)
MARKING METHOD:	Screen Printing(Serigraph)
LABELLING:	Model No : Seri No : Manufacturing Date : Expiry Date :
CASING MATERIAL:	PAINTED RAL 3001 STEEL 1.5mm(thickness)
CERTIFICATES:	ISO 15779

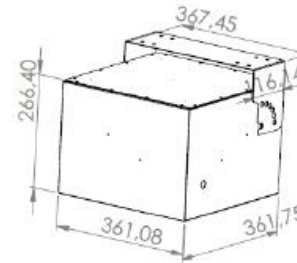
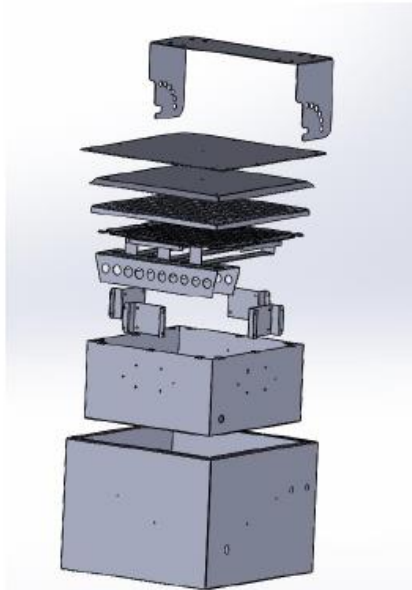


MODEL NO:	HFX-3400
GROSS WEIGHT:	20100 gr. ±%2
CHEMICAL WEIGHT:	3400 gr. KNO ₃ POTASSIUM NITRATE
COOLING SECTION WEIGHT:	6800 gr. ±%5 (PRP:%99 Al ₂ O ₃ , 16mm Ø Melting Point 2050° C)
HIGH TEMPERATURE INSULATION FELT:	5 pcs. 1mm(d),(1300° C)
DIMENSIONS:	287 x 287 x 264 (in mm)
MARKING METHOD:	Screen Printing(Serigraph)
LABELLING:	Model No : Seri No : Manufacturing Date : Expiry Date :
CASING MATERIAL:	PAINTED RAL 3001 STEEL 1.5mm(thickness)
CERTIFICATES:	TS ISO 15779:2016

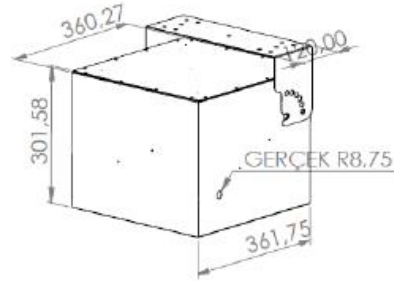
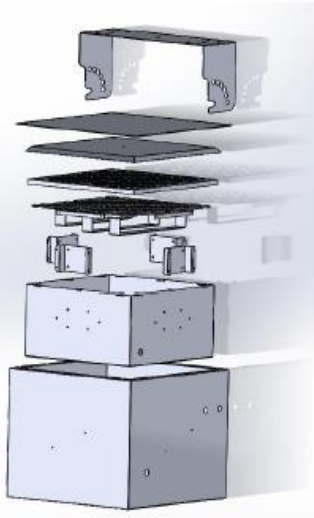


MODEL NO:	HFX-4500
GROSS WEIGHT:	29300 gr. ±%2
CHEMICAL WEIGHT:	4500 gr. KNO ₃ POTASSIUM NITRATE
COOLING SECTION WEIGHT:	9000 gr. ±%5 (PRP:%99 Al ₂ O ₃ , 16mm Ø Melting Point 2050° C)
HIGH TEMPERATURE INSULATION FELT:	5 pcs. 1mm(d),(1300° C)
DIMENSIONS:	361 x 361 x 268 (in mm)
MARKING METHOD:	Screen Printing(Serigraph)
LABELLING:	Model No : Seri No : Manufacturing Date : Expiry Date :
CASING MATERIAL:	PAINTED RAL 3001 STEEL 1.5mm(thickness)

TS ISO 15779:2016



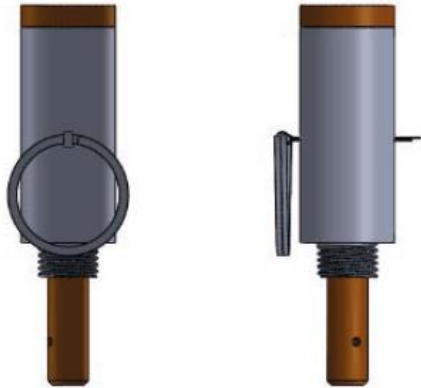
MODEL NO:	HFX-6000
GROSS WEIGHT:	33700 gr. ±%2
CHEMICAL WEIGHT:	6000 gr. KNO ₃ POTASSIUM NITRATE
COOLING SECTION WEIGHT:	12800 gr. ±%5 (PRP:%99 Al ₂ O ₃ , 16mm Ø Melting Point 2050°C)
HIGH TEMPERATURE INSULATION FELT:	5 pcs. 3mm(d),(1300°C)
DIMENSIONS:	361 x 361 x 302 (in mm)
MARKING METHOD:	Screen Printing(Serigraph)
LABELLING:	Model No : Seri No : Manufacturing Date : Expiry Date :
CASING MATERIAL:	PAINTED RAL 3001 1.5mm
CERTIFICATES:	TS ISO 15779:2016



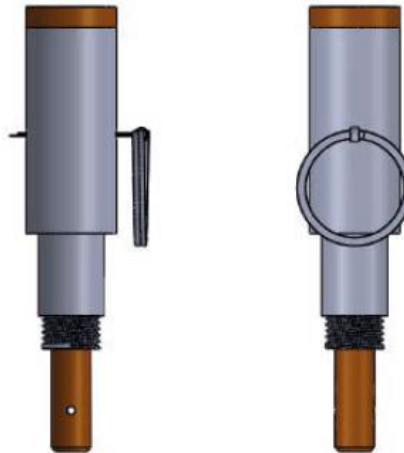
THERMO-MECHANIC HEAT DETECTION AND ACTIVATION MODULE

THERMO-MECHANIC ACTIVATOR (TMA-K, TMA-U)

Thermo-Mechanic Activator (TMA-K)
For HFX-50S,100S,200S,500S



Thermo-Mechanic Activator (TMA-U)
For HFX-1100,2200,3400,4500,6000



Suitable for all HAFEX aerosol fire extinguisher generators which detects the heat at different temperatures and "TMA" activates the aerosol generators.

COLOR CODES:



DETECTION TEMPERATURES: 62°C, 70°C, 98°C, 124°C, 138°C



HAFEX[®]
HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS

**HFX-200 TEST WITHIN ELECTRICAL
CABINET LOAD OF FIRE IS INTENSIVE..**

<https://www.youtube.com/watch?v=V3mbbJbnjAl>

PANEL TYPE STAND-ALONE FIRE EXTINGUISHING SYSTEM





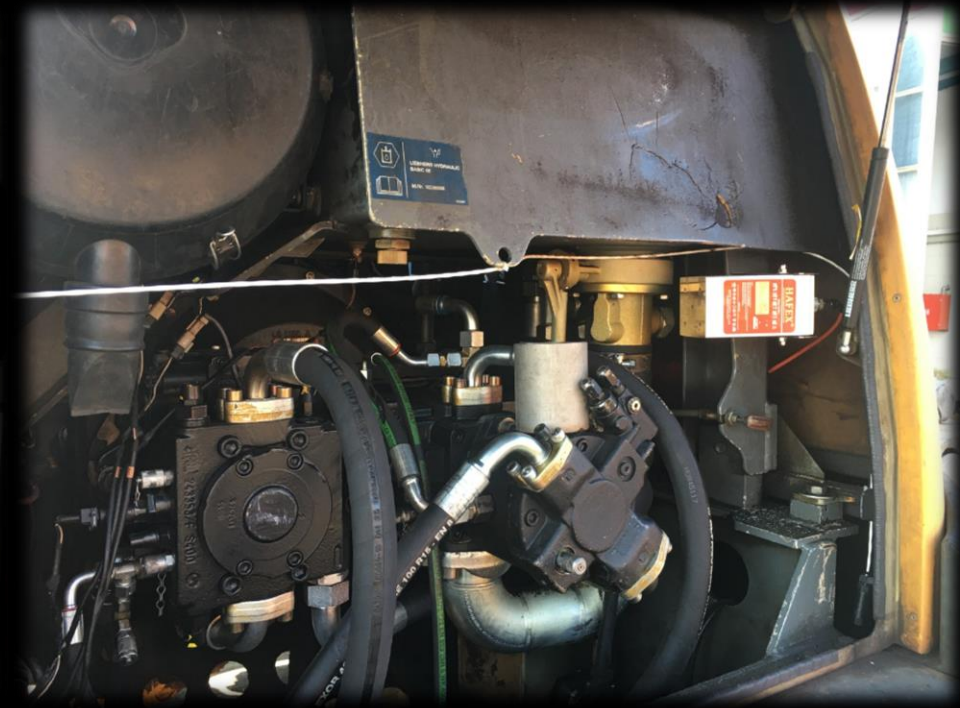
YG Yangın Güvenliği
San. ve Dış Tic. Ltd. Şti.

HAFEX[®]
HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS

ELECTRICAL CONTROL ROOM



CONSTRUCTION MACHINE





YG Yangın Güvenliği
San. ve Dış Tic. Ltd. Şti.

HAFEX[®]
HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS

BATTERY ROOM



SYSTEM ROOM



TRANSFORMER ROOM





HAFEX[®]
HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS

MV-LV CELLS

TRANSFORMER SUB-STATIONS





Baku's new courthouse equipped with the latest technology was put into service. Our sister country Azerbaijan has chosen HAFEX technology to protect the archive rooms of the new courthouse, which is opened by President Ilham Aliyev. In this way, the archives of the biggest courthouse in our sister country were taken under protection together with the fire detection and extinguishing systems.



HAFEX[®]
HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS

THE MINISTRY OF ENERGY PROJECT IN KIRKUK/IRAQ

<https://www.youtube.com/watch?v=Mv-kwcYFEvQ>

HAFEX[®]
HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS



SGS
Siyah Güvenlik Sistemleri

- In addition to the fire extinguishers that we produce, our company also carries out the design and production of special purpose for fire detection and extinguishing panels (fire control panels) and auxiliary electronic equipments which enable these extinguishers to be activated correctly in case of a possible fire. Regarding the design and production of the software and hardware infrastructure of these special purpose fire detection and extinguishing panels and auxiliary equipment, each of which has various qualities according to the purpose of use.
- In the design of our fire detection and extinguishing panels and other auxiliary electronic equipment, MPLABX is used while preparing the micro-controller software infrastructure, and while preparing the electronic hardware infrastructure and pcb cards, ISIS and ARES design programs in Proteus Design Suite are used by our partner company SGS Siyah Guvenlik Sistemleri.
- Therefore, the following slides will explain our electronical control systems.





FIRE EXTINGUISHING SYSTEM CONTROL MODULES

HAFEX
HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS



VEHICLES

FOR SMALL VOLUMES

GENERAL USE

TELECOM

WITH FUEL

ELECTRICAL

ELECTRICAL CABINETS

RACK CABINETS

SEQUENTIAL ACTIVATOR

HFX-48GSM

100-S

**New Generation Compact
Fire Control Panel**

200L

200A

Micro Fire Control Panels

200R

**Fire Detection & Control
& Extinguishing Module**

**New Generation Compact
Fire Control Panel**



200L

Micro fire control panel-AC powered) for small volume environments

- It is designed to be used in small-volume areas such as electrical distribution and automation panels, data processing / server cabinets.
- It can be used with miniature thermostats and LHD heat sensing cables.
- It is the first and single rail mounted micro fire control panel developed for such applications. For this reason, it can be easily mounted in a very small place on the vending rails in electrical and automation panels.
- It has a universal supply input that can work with 100-240V 50-60Hz AC. Therefore, it does not require AC-DC SMPS or DC power supply.
- There is a 900mAh 3.7V 14500 rechargeable lithium-ion battery inside the panel in order to be not affected by power outages. For this reason, it does not need external battery connection for back-up. All features such as supply voltage monitoring, charging / discharging status of the integrated lithium battery, switching from battery to supply in case of power failure are monitored and controlled by the software and hardware infrastructure of the panel. Since it has very low current consumption, it continues to operate without being affected by long power outages.



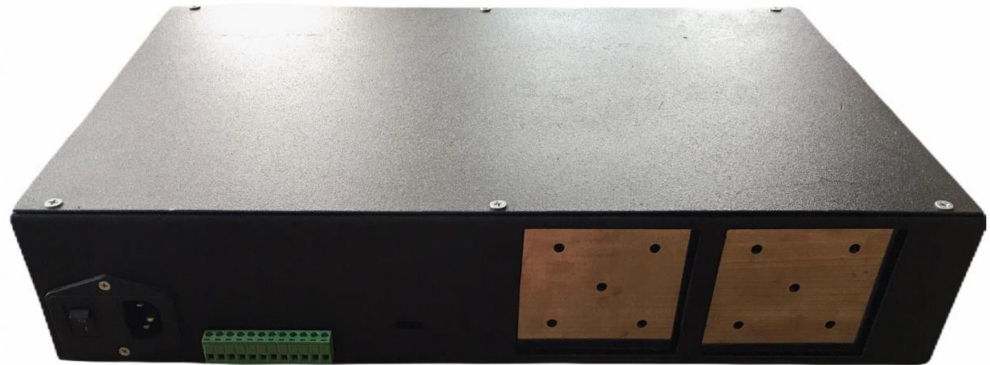
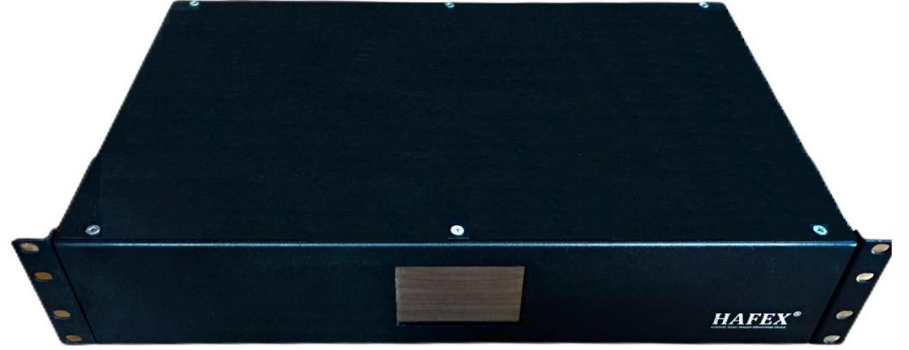
HFX-200 TEST ACTIVATED BY 200L VIA LINEAR HEAT DETECTOR

- <https://www.youtube.com/watch?v=EIJK59ayD9w>

200R

Fire detection, extinguishing and control system specific to rack cabinets

- The detection, control and aerosol extinguisher infrastructure is placed in a 2U module and an all-in-one solution is provided for rack cabinets.
- The laser-based air sampling infrastructure used in the extinguishing system is different from competing applications, more unique and smaller than conventional solutions.
- With the S-type aerosol extinguishers used in the extinguishing system, it was ensured that the extinguishing process was carried out without damaging the electronic equipment in the cabinet.
- For all these reasons, it is the only one of its kind in the industry.



SEQUENTIAL ACTIVATOR

Auxiliary equipment for connecting a large number of aerosol extinguishing units to the panel extinguishing outlet

- When more than 4-5 aerosol extinguisher units are connected to the extinguishing output of a panel with 24V DC supply voltage, in series with each other or more than 2-3 in parallel to each other, the extinguishing output of the panel is difficult to activate the aerosol extinguisher units electrically. When more than these numbers are connected to the panel extinguishing outlet, there is a possibility that some of the units will not be activated.
- However, it is necessary to activate a large number of aerosol extinguisher units through an extinguishing outlet, especially for the protection of large closed volumes. In order to overcome this problem, it is necessary to use the auxiliary equipment that we call Sequential Activator.
- The sequencers are connected to the extinguishing out-put of the panel and each sequencer controls up to 4 aerosol suppression units. Using the sequencer, it is possible to connect a maximum of 256 aerosol extinguishers to the extinguishing outlet of a panel.
- Sequencers produced by other companies are linked together like chain links. Each sequencer is activated by the previous sequencer. Therefore, if a previous sequencer fails, all subsequent sequencers are disabled. Unlike competitors' products, our production sorters work independently from each other. For this reason, a situation such as the collapse of the entire system after the defective sequencer due to a failure of any sequencer is prevented.



HFX-48GSM

Compact Conventional Fire Control Panel Designed For The Telecom Industry

- It can operate with 48V DC supply voltage, which is standard for the telecom industry. For this reason, it does not require an additional DC / DC or AC / DC SMPS. It can operate with a maximum 60V DC supply voltage.
- False alarm situations are minimized with the "cross-zone" operation of conventional smoke detector and LHD heat detection cable entries.
- It can be integrated into the BSC / BTS remote monitoring infrastructure with its Alarm and Fault auxiliary relays.
- It takes less space and is easy to install with its compact ABS body structure.



100S (In development phase)

Advanced new generation compact fire control panel to be used in motor vehicles and electric vehicles

- By using SEPIC DC / DC converters in the 10-33V DC supply infrastructure of the panel, it will be ensured that the vehicles operate without being affected by high-level voltage fluctuations in the supply lines. It will be used with high security in vehicles with both 12V and 24V supply voltage infrastructure.
- Manual and automatic detection and extinguishing features will be added with 3 detection inputs and 1 extinguishing output.
- RTC (real time clock) and 1000 event capacity event log capability will be added.
- It communicates through the 20 - 1000 Kbps integrated CAN 2.0B port on the panel, using SAE J1939, which is the standard data communication protocol in buses, trucks, trucks and many business machines, and integrated into the CAN (Controller Area Network) backbone of the vehicle as an ECU responsible for fire detection and extinguishing will be provided. Thus, it is envisaged to be the first and only vehicle fire control panel (FCU - Fire Control Unit) with the features mentioned in the previous articles and with an integrated CAN port.
- A version with a 5 Mbps CAN FD (Flexible Data Rate) port will also be available in electric vehicles to be used as a fire control panel that can be connected to the CAN backbone.

KONUŐMACI:
POZİSYON:
MESLEK:
TEL:
E-MAIL:

UFUK CAN GÜNAYDIN
YÖNETİM KURULU ÜYESİ
YANGIN MÜHENDİSİ
+90 5465002405

info@hafex.com.tr
info@ohprotection.com



YG Yangın Güvenliđi
San. ve DıŐ Tic. Ltd. Őti.



HAFEX®

HYBRID AEROSOL FIRE EXTINGUISHING SYSTEMS

www.ygyangin.com • www.hafex.com.tr • www.superfireball.com

