# **EXAMPLES OF APPLICATIONS**

## **UIS-48S**



The UIS-48S modules were developed for use on fires of classes A, B, C, D, and E (depending on the extinguishing powder used) in industrial external areas. The modules are static, automated, and managed through a system with high technology sensors.

#### **TECHNICAL DESCRIPTION**

Weight with total charge (Kg)	2800
Number of operators	0
Dimensions (mm)	
Length	2200
Width	1236
Heiht	1878
Number of sprayers	10
Weight of the mixture in each sprayer (Kg)	26-30
Reach (m)	
Coverage angle	380°
Aiming control	automatic-eletronic





## **IMPULSE STORM SYSTEM**



The Impulse Storm System monitors, detects and intervene upon fire detection. It is responsible for interpreting all the data received from the sensors, analyzing information, defining the strategy to be used, alarm signaling, and commanding the Impulse Storm Units (UIS).

#### **TECHNICAL DESCRIPTION**

- Detects thermal abnormalities on the monitored area, through the pre-programming of the operational, alert, alarm, and intervention temperatures;
- Different programming of sound, visual, and communication alarms;
- Pre-programming of alarms;
- Data exchange with other systems and/or equipment;
- Utilizes information from existing automation systems;
- Controls different fire-fighting systems, permitting to choose the best intervention strategy;
- Pre-definition of commands, based on the fire stage and expansion;
- Controls up to 20 UIS-48S units:
- Maintains historic data with received data and transmitted commands;
- Programming of areas defining permission level to manually or automatically activate the extinguishing equipment;
- Full graphic interface indicating the status and data received from each sensor, as well as the location of an abnormality;
- Presentation of messages on the screen in case of an abnormality detection, describing the abnormality and recommending procedures and measures that should be adopted;

The monitored data and transmitted commands are stored in a data base with different access levels.



### **IMPULSE-STORM** ™

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# THE TECHNOLOGY



The instantaneous spraying of great quantities of extinguishing materials - denominated **Impulse Storm** - allows to efficiently extinguish fires of different classes (A, B, C, D, and E). Depending on the equipment's configuration, it is possible to spray, in less than 6 seconds, 1½ tons of extinguishing powder over a total distance of 100 meters.

The **Impulse Storm** combines the extinguishing chemical effects produced by the special powder mixtures with the powerful physical action generated by the impulse process, which removes the flame from the fuel. As a result, it is possible to eliminate, with



reduced costs, fires in different types of installations, such as warehouses, ammunition depots, industrial plants (including nuclear power and thermal electric), and forests.

The technology is also extremely efficient in closed premises, once that, besides the extinguishing effect, the technique creates a suspended cloud of firequenching material, avoiding reignition. Since there is no use of water, material losses are reduced.

Another major advantage of equipment that utilize the **Impulse Storm** technology, is the safeguard of the intervention personnel.

For example, the Impulse Tanks allows the approach to the fire center, without the apprehension of the flame action, high temperatures and chock waves. The vehicle is equipped with powerful filters and ventilation installations which secure the protection of its crew from the external toxic products. Its armored body considerably reduces the dangers to explosive and radioactive environments.

The simplicity and efficiency of the **Impulse Storm** technology allowed the development of solutions designed to act on the "zero instant" of a fire. Attached to modern automatic fire detection systems, it is



possible to extinguish a fire after with only 1 second after its initial stage.

In order to act on different types of fires, the **Impulse Storm** technology machinery can be equipped with different types of fire-quenching material and/or spraying capacity. All extinguishing material used on the machineries comply with environmental and health international standards.

The equipment are fully autonomous, and do not require extensive and complicated training programs for maintenance and operation.



# **EXAMPLES OF APPLICATIONS**

### **IMPULSE TANK**



The Impulse Tank is equipped with an Impulse Storm Cassette containing 50 sprayers. It is designed for intervention in major fire accidents of the Classes A, B, C, D, E, and F. The armor shield protects its operators from the thermal radiation, chock waves, flames, explosion fragments and toxic gases.

#### **TECHNICAL DESCRIPTION**

Number of operators	2
Average pressure (kg/cm <sup>2</sup> )	0,77
Weight with full capacity (Kg)	
Dimensions (mm)	
Length	7440
Largura	3520
Vehicle height	3350
Total Height	
Average speed (km/h)	
Dirt road	30
Paved road	40
Number of Impulse Sprayers	50
Mixture weight in each sprayer (Kg)	
Reach (m)	

## **PORTABLE EXTINGUISHER - EDDY**



The EDDY is a portable fire extinguisher that uses the Impulse Storm technology, and is designed for intervention on small fires of Classes A, B or C. The equipment is manufactured with non-corrosive and non-flammable material. The EDDY is excellent for use on offices, residences, automobiles, etc, in replacement of existing and less efficient fire extinguishers.

#### TECHNICAL DESCRIPTION

TECHNICAL DESCRIPTION	
Extinguishing powder weight	0,3 à 0,5 Kg
Storage volume	0,4 ± 0,02 Liters
Time required for discharge	3 ± 1 sec
Effective reach of extinguishing powder	
Remaining quantity of extinguishing powder	
after the discharge % of the total mass	0,1 %
Fire extinguishing effectivity	1-A/10-B/35.000 Volts
Total length	360 ± 5 mm
Diameter of the sprayer tube	50 ± 5 mm
Weight of the charged srayer tube	0,45 à 0,65 Kg
Duration of the discharge	30 miliseconds
Operation temperature	50 à +50 °C

# DISTANCE AND HEIGHT - 1 SECOND AND 1.5 SECONDS AFTER THE DISCHARGE PULVERIZATION OF 300Kg OF EXTINGUISHING POWDER

