

Water Fire Extinguishing Systems

Water Sprinkler extinguishing systems are the most widely used and preferred systems in terms of extinguishing the fire during a fire that may occur. As long as the site characteristics and applicability principles allow, such water extinguishing systems are among the most effective systems in preventing and extinguishing the spread of fire.



Evenos Fire Safety Systems, with its hydraulic calculation programs imported from the USA and Germany, carries out all water extinguishing system designs and project designs within its engineering department and offers its customers optimal solutions in terms of applicability and cost-effectiveness.

All of the water sprinkler systems materials supplied and applied by Evenos A.Ş., which are the most widely used water sprinkler systems except for Class B, Class D and Class E fires, are first class quality materials and all of them have international approvals such as FM approval, UL list, VdS approval, LPCB approval. Hydraulic calculation programs within Evenos A.Ş. also have FM approval, UL list and VdS approvals.

Water extinguishing system elements

- Fire Pump Group
- Fire Water Tank
- Fire Cabinets
- Fire Brigade Water Intake Spout

- Sprinkler System
- Fire Brigade Water Supply Spout
- Hydrant System
- Pre action extinguishing system
- Water Mist – Water Mist extinguishing systems

Such systems are designed by Evenos A.Ş.'s experienced engineering staff and installed in the relevant sites by Evenos A.Ş.'s field team, in accordance with international standards.

According to the ambient conditions and application conditions, the systems can be selected as wet pipe, dry pipe, dominant type and pre action type. Evenos A.Ş. engineers, considering all applicability and cost conditions, choose the most suitable system for their customers and make the project designs accordingly.

After the system installations, maintenance operations are indispensable in order to ensure that the effectiveness of the systems remains at the maximum level and that the possibilities to intervene in future fires are constantly available. The effectiveness of the water extinguishing systems of the customers is guaranteed and the customers are informed about this issue in the periodic controls carried out by the experienced Evenos A.Ş. staff in accordance with the standards.

All system designs are based on NFPA13 and TS EN 12845 standards, and NFPA25 (NFPA Test And Maintenance, Inspection) standards are observed for the maintenance phase.

Fire Hose Cabinets



Fires are one of the greatest dangers that all living things face.

After a fire occurs, the intervention of the fire brigade may be delayed due to factors such as traffic, narrow streets, and the inability of the fire brigade to find a place to approach.

Due to such delays, flames that could perhaps be stopped with very small touches can spread and cause serious loss of life and property.

This is why fire installations must be available in buildings.

Fire cabinets and fire pumps Some fire extinguishing elements, such as fire extinguishers, can save a great deal of time before firefighters can respond to the scene.

The fire cabinet allows water and foam extinguishing methods to be applied.

General Information About Fire Cabinets

A fire cabinet is part of the fire installation system in buildings.

This fire extinguishing cabinet is not automatic and is usually wall-mounted.

The fire cabinet hose inside has a fire-resistant outer coating and non-folding features.

Extinguishing tubes are usually used in the first stage of fires.

If the fire continues to grow, the valve of the fire hose is opened from the fire extinguisher cabinet and intervened with pressurized water.

As can be understood from this, the hydrant cabinet plays a very effective role in the first intervention to the fire.

The hydrant cabinet contains a fire hydrant, a fire-resistant hose and a sprinkler connected to the end of the hose.

These cabinets are usually 600x700x160 millimeters in size.

What are the Types of Fire Cabinets?

Fire cabinets do not always contain only tubes and hoses.

Fire equipment cabinets, which also contain emergency response equipment, masks and vitally important elements, are also frequently preferred.

Surface mounted glassless and glazed fire cabinet, fire cabinet with cylinder, flush mounted glassless and glazed fire cabinet, indoor fire cabinet, outdoor fire cabinet (field type fire cabinet), decorative fire cabinet, **fire cabinet with foam** and there are various cabinets, including a fire supply cabinet.

- **Field Type Fire Cabinet:** These cabinets, also known as field/outdoor fire cabinets, allow fires to be affected from outside.
The field type fire cabinet that complies with TS EN 671-2 standard can be connected to a separate fire pump.
The price of a field-type fire cabinet varies according to both the dimensions of the cabinet and the extra flashlight, hydrant switch, etc. that can be added to the cabinet.
equipment that can be added to the cabinet.
- **Foam Fire Cabinet:** **Foam fire cabinet**in foam tank as well as water spray mechanisms.
These non-water-based systems are more effective than aqueous extinguishing systems,

especially in fighting fires that occur inside the building. **Fire cabinet with foam**The disadvantage is that foam tanks are limited.

- **Decorative Fire Cabinet:** Decorative fire cabinets are far from classical and have a stylish design.

These cabinets, which have a special equipment, are manufactured in accordance with the interior design of the building and this does not contradict the rules of the fire cabinet regulation.

- **Fire Supply Cabinet:** These cabinets, which contain all the materials that can intervene in a fire, are both useful in dealing with the fire and provide the equipment needed to prevent loss of life.

For example, there are firefighter suits, heat-resistant gloves and helmets.

These cabinets, whose interior design can vary, are in the form of glass fire cabinets and their contents can be seen even in an area covered with smoke.

Fire Cabinet Prices

Fire cabinet prices can vary.

For example, prices may also vary depending on whether it has double or single doors.

Likewise, there may be a difference in fire cabinet prices depending on whether it has glazed or non-glazed options and fire material cabinet feature.

In addition, prices may increase or decrease depending on whether the installation of this fire cabinet is included in the price.

In addition, prices may vary depending on whether these cabinets are decorative fire cabinets or not.

Floor or wall-mounted fire cabinets should be designed to stand out in the dark.

Fire cabinet installation should be done by professionals in the field.

After installation, people should be informed about how to use fire cabinets.

How Should a Fire Cabinet Be?

The fire cabinet should be installed in a place easily accessible to people.

The design flow rate of the cabinet should be between 100l/min 400 l/min and the pressure at the lance inlet should be 400kPa- 600 kPa.

What is Inside the Fire Cabinet?

The contents may vary according to the type of fire cabinet.

For example, when a fire extinguisher cabinet is considered, this cabinet may contain a 6-kilogram fire extinguisher, flashlight and record key.

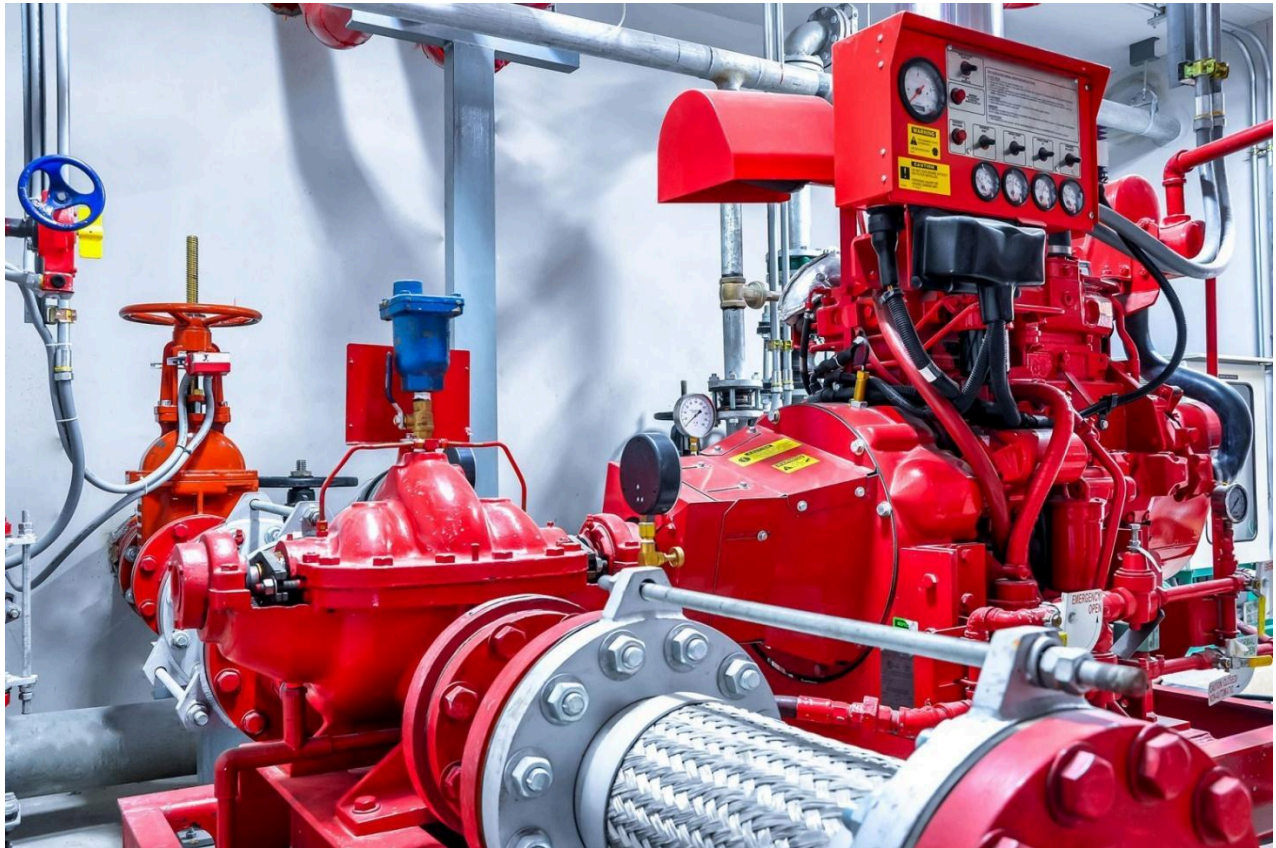
Generally, a fire cabinet contains a fire hydrant and a hose made of durable material.

What is not in a fire cabinet?

The fire cabinet should always be kept clean and items such as paper and dust cloths should not be placed in these cabinets.

In addition, misuse of the fire cabinet should be prevented.

Fire Pump Systems



Fires are one of the most difficult disasters for all living things to cope with. In order to be protected from the losses caused by fires, some precautions must be taken. Since there are various types of fires, the systems used in fire extinguishing may vary.

The fire pump is an equipment that transmits water from the source to the fire extinguishing installation with a predetermined pressure.

The fire extinguishing pump, which tries to prevent the spread of fires that are especially difficult to control, is used in the initial stage of the fire.

What Does a Fire Pump Do?

The main function of the fire pump is to ensure the transmission of water used in extinguishing mechanisms at a constant flow rate and pressure.

Fire pump systems include sprinkler extinguishing methods, fire hose installation and can supply fire hydrant mechanisms with uninterrupted water.

The following should be considered when creating a fire pump room:

- The distances between pumps should be wide enough to be easily reached during any maintenance.
- The internal temperature inside the fire pump room should be designed to be at least 5 degrees.
- The panels of the diesel fire pump, electric fire pump and jockey pump must be separate from each other.

What is the Working Principle of Fire Pumps?

There is a control panel that controls the fire extinguishing pumps.

Fire pumps, which can operate with diesel or electric engines, consist of a backup pump and jockey pump in addition to the main pump to ensure complete safety.

During any problem that may occur in the main pump, the backup pump with the same capacity is activated and intervenes in the fire.

Generally, electric fire pumps are preferred for the main pump, while diesel fire pumps are selected for the backup pump as a precaution against power outages.

If there is a generator with the capacity to supply the electric fire pump in the area where the fire pump will be installed, the backup fire pump can also be selected as an electric pump.

NFPA 20 Fire Pump

The National Fire Protection Association (NFPA) was established in the United States to fight fires.

NFPA 20 is a standard adopted to define the features that must be present in fire pump systems used for fire control.

The considerations of this standard include fire pump selection, fire pump installation and operation.

NFPA 20 fire pump types can be:

- In-Line
- End Suction
- Horizontal/Vertical Split Body
- Horizontal Multistage
- Vertical Turbine Type
- Positive Displacement Pump

What Does a Booster Do?

A booster is the pressurization of water.

Boosters are usually powered by electricity and increase the pressure of the water flowing from the tap.

The difference between the fire booster, which can be connected directly to the mains water, and the pump is that the booster covers a whole system.

This system consists of the pump and the control equipment of the pump.

In short, the fire booster is a control system that ensures the long life of the pump.

What is a Fire Pump?

Fire pump, just like fire cabinets, hydrant system and **Water Mist-Water Fog extinguishing systems** It is one of the elements used in the fight against fires such as fire.

They are the equipment that ensures the pressurization of predetermined water nozzles during any fire.

How to Calculate Fire Pump Head Height?

The calculations of electric and diesel fire pumps operating under the influence of pressure should be made carefully.

Multiple calculation methods can be used.

When calculating the head of the fire pump, features such as flow rate, fluid density, engine efficiency and hydraulic efficiency are taken into consideration.

Considering the fire pump connection diagram, in places where there is no sprinkler system, the height of the fire extinguishing pump can be found by the sum of the following:

- Pressure level required at the top of the system (mSS)
- Height from the pump to the hose valve at the top (m)
- Friction loss between the pump and the hose valve at the top.

What Does a Fire Plumbing Jockey Pump Do?

The jockey pump plays an effective role especially in sudden pressure drops caused by losses in standard fire pump systems.

Jokey pumps, which are activated before the main pump, prevent unnecessary operation of the fire pump.

How to Choose a Fire Pump?

Considering the fire pump group, the following should be taken into account when choosing a pump:

- Mechanical structure in the fire extinguishing system
- Area to be used
- Location of the water source
- Flow rate and density of water

If the source that delivers water to the pump is below the suction point, vertical turbine type pumps are used, while horizontal suction pumps are used in other conditions.

After calculating the flow rate and head, any pump including varieties such as diesel fire pumps can be selected.

After the flow calculations are made, the appropriate fire pump can also be selected.

The fire pumps used must operate at 150% of the nominal flows.

How to Calculate Fire Pump?

When designing the fire pump connection scheme, the water source must have the power to meet the flow.

According to the calculations made, the flow and pressure values of the fire pumps are determined.

What is a Centrifugal Pump?

One of the frequently used pumps in the fire pump group is centrifugal pumps.

These pumps are single-stage horizontal separable casing pumps with double suction.

The working principle of centrifugal fire pumps is basically the conversion of kinetic energy in the rotating liquid into hydrodynamic energy.

Thus, the liquid is pressurized.

How Many Types of Fire Pumps Are There?

There are basically three different types of standard fire pumps.

These include:

- End suction fire pumps
- Split case fire pumps
- Double Suction Centrifugal Fire Pumps with Detachable Casing
- Line Type Fire Pumps

What are the Auxiliary Elements of the Fire Pump?

The main auxiliary elements that must be present in fire pumps are automatic air discharge valve and circulation relief valve.

In addition, the control panel of each pump must be independent.

Where Are Fire Pumps Used?

Fire pumps can be used in all residential and factory areas where there is a risk of fire.

These pumps are also used in villas, housing estates and apartment buildings.

They are also frequently used in industrial facilities, hospitals, schools and hotels, which are under particularly high threat.

How to Maintain Fire Pumps?

Fire pumps should be maintained at regular intervals.

Daily, monthly and annual routine checks can extend the life of fire booster systems.

During maintenance, the following are checked:

- Oil level
- Condition of the shaft and other equipment
- Pump operating status
- Auxiliary staff
- Coupling alignment
- Cleanliness of the board

What is UL and FM Approval for Fire Pumps?

Underwriters Laboratories Inc. (UL) scientifically evaluates and controls building materials, energy, fire systems, lighting and water system components against electrical, fire and injury risks.

UL 448 standards specify the design and testing of pumps in fire suppression systems.

Factory Mutual Insurance Company (FM) ensures that products and services are manufactured to high quality and performance standards for use in commercial and industrial facilities.

The FM 1319 standard defines the approval requirements for horizontal end suction centrifugal fire pumps.

Fire Sprinkler System



Water sprinkler systems, based on the principle of extinguishing ignited materials or products in case of fire hazard, are named after the sprayer unit at the end.

Aqueous sprinkler systems are one of the most effective automatic extinguishing systems with the help of extinguishing liquids.

Water sprinkler systems, which are automatically mounted on the ceiling and side parts, are more effective for flames that suddenly spread in large areas.

Thanks to the water sprinkler system that detects fire and smoke very quickly, fire intervention starts within seconds.

For this reason, water sprinkler extinguishing systems for places with high material value such as warehouses and large workplaces also prevent economic loss.

It is seen that water extinguishers are more effective and functional in type A and type C fire types.

Therefore, thanks to systems using water extinguishers such as sprinkler extinguishing systems fire extinguishing process is achieved at a very high rate of success.

The water sprinkler system is one of the most suitable extinguishing systems for factories or other businesses with larger areas that contain many different valuable materials.

What are the Types of Aqueous Sprinkler Systems?

Water sprinkler extinguishing systems, which have four different types, are prepared by taking into account details such as flammable material, whether there is a shelf arrangement, whether there is a risk of freezing, risk group and accordingly adjusted flow rate, pipe installation route, whether it is in the earthquake zone.

These four types are explained as follows.

Wet Pipe Sprinkler Extinguishing Systems

In wet pipe water sprinkler extinguishing systems, the sprinkler opens with the effect of the heat generated by the fire and the water flows intensively on the burning material.

In this system, which is automatically activated by the effect of the heat generated by the fire, water is discharged on the combustible material in the form of sprinkling.

Dry Pipe Sprinkler Extinguishing Systems

In the dry pipe water sprinkler extinguishing system, a compressed air is applied to keep the valve between the pipe network water supply and the pipe network closed, or this area is filled with nitrogen gas instead of compressed air.

The air pressure in the system is automatically controlled by a valve placed at the inlet of the network.

The heat generated during the fire activates any sprinkler and the pressure in the pipe network drops rapidly.

As the pressure drops, the valve at the inlet of the dry pipe network opens automatically.

These opened pipes are filled with water and move towards the fire zone.

Deluge Water Sprinkler Extinguishing Systems

In Deluge water sprinkler extinguishing systems, which are similar to wet and dry pipe water sprinkler extinguishing systems, the control valve is normally closed.

The valve is automatically activated by a separate fire detection system and opens very quickly.

Deluge water sprinkler extinguishing systems are frequently preferred in controlling rapidly spreading fires and in situations where a large amount of water is needed in a short time.

Preaction Water Sprinkler Extinguishing Systems

In Preaction water sprinkler extinguishing systems, which are similar to Deluge water sprinkler extinguishing systems, but where the sprinkler is not in the open position, the sprinkler is protected by melting elements or glass bulbs.

In this system, the control valve acts as a preaction valve.

With the heat generated during the fire, the pre-moving valve opens and the pipe network is filled with water.

Working Principle of Aqueous Sprinkler System

The basic principle of water sprinkler extinguishing systems in fire intervention is to recognize the fire at the initial stage and prevent its growth.

In this system, the smoke sensor sensors and simultaneously send a warning to the main panel and extinguishing should start.

In addition, in water sprinkler extinguishing systems, there is also the principle of reducing the growing flames and high heat, spraying extinguishing liquids from automatically exploding sprinkler tips, sticking the smoke that has a suffocating effect on people to the ground and giving time for the personnel to get out.

Thanks to these systems, the elimination of smoke also facilitates the intervention of professional teams in terms of visibility.

Sprinkler Extinguishing System Design

In aqueous sprinkler systems, the diameter of the fixed piping providing water should be determined according to hydraulic calculations.

If the main supply pipe in the water sprinkler system addresses more than one fire zone; flow switches, test and drainage valves and line shut-off valves with monitoring switches should be installed on each zone or column line.

There should also be shut-off valves on the pipes feeding the water sprinkler system.

Measures should be taken to ensure that the valves in the pipelines, regional control valves and all valves between the water supply and the water sprinkler extinguishing system remain open at all times.

What are the Usage Areas of Aqueous Sprinkler Extinguishing Systems?

Water sprinkler extinguishing systems are frequently used with their extinguishing effect, cooling effect, controlling and controlled fire extinguishing features.

Aqueous sprinkler extinguishing systems prevent the structure or area from being deformed by fire and heat until the fire brigade arrives and extinguishes it, and ensures that the structure remains standing to ensure no loss of life and safe escape.

What are the Advantages of Aqueous Sprinkler Extinguishing Systems?

Water sprinkler extinguishing systems have many advantages.

These advantages are as follows:

- Water sprinklers protect the structure and the building.
- Water sprinkler systems can operate automatically 24 hours a day, 7 days a week as they are automatically activated.

- Water sprinkler systems are activated in the fire area and extinguish the fire.
- When water is applied around the fire with its cooling effect, the spread of fire is prevented by water sprinkler extinguishing systems and the fire is taken under control.
- Water sprinkler extinguishing systems have a very accessible structure.
- Aqueous sprinkler extinguishing systems do not require a process that would leave them unprotected, such as refilling.
- Aqueous sprinkler extinguishing systems do not require flushing like foam.
- By replacing the sprinklers affected by the fire in the system, the system is easily reactivated.

How Does a Sprinkler System Work?

In sprinkler systems, with the heat rising with the fire, the compressed air opens the valve that will distribute the water to the pipes and the water is filled into the pipes and discharged on the fire by means of sprinklers.

What is an Automatic Sprinkler System?

Automatic sprinkler systems, fire sprinkler system consists of pipes fixed to the ceiling in the building and discharge sprinklers connected to these pipes.

How to Install a Sprinkler System?

Sprinkler systems are usually installed with a pump unit, main pipeline and lateral pipelines.

Where is Sprinkler System Mandatory?

Sprinkler systems are compulsory in all buildings other than residential buildings where the building height is higher than 30.5 meters, in all residential buildings with a building height exceeding 51.5 meters, in indoor parking areas with a total area of more than 600 square meters and in parking lots with elevators with a capacity of more than 10 vehicles.

When does the sprinkler start to work?

In sprinkler systems, the heat rising with the fire melts or explodes the glass tubes on the sprinkler and the system is activated.

How to Maintain a Sprinkler System?

Sprinkler system maintenance is carried out regularly and in certain periods.

How to Design a Sprinkler System?

Sprinkler system design is designed according to engineering calculations consisting of many different components such as the layout of the space, the characteristics of the material in the space, and the storage heights of the material.

What Materials Does the Sprinkler System Consist of?

The sprinkler system consists of sprinkler heads, pipes, fittings and hangers and installation control valves.

What is the K Factor in Sprinkler Extinguishing Systems?

The K factor is a value used to calculate the flow rate and pressure of the water to be discharged from the sprinkler head.

How Important is the Distance Between Sprinklers?

In sprinkler systems, the maximum distance between sprinklers on the branch line should be 3 meters.

Sprinkler systems, which should be placed at a maximum of 3 meters, are very effective in fires. For this reason, distance is very important.

At What Degree Do Fire Extinguishing Sprinklers Start Working?

Fire extinguishing sprinklers have explosion temperatures that differ according to their rating. This value is min 68°C.

How Many Types of Sprinklers Are There?

Sprinkler systems are analyzed in two groups as wet sprinkler system and dry sprinkler system.

What is a Dry Pipe Sprinkler System?

Dry pipe sprinklers are systems where the top of the dry alarm valve is continuously pressurized with compressed air or inert gas.

Fire Hydrants



One of the most important substances used in extinguishing fires is undoubtedly water. The system that allows this water to be spread and delivered to the fire areas is the fire hydrant. The fire hydrant system, which allows water to be sprayed to all parts of the area, is very important in terms of intervening in uncontrollable fires.

Water sprinkler extinguishing systems are frequently preferred for controlling fires. Fire pumps, hydrant system, fire cabinets and water extinguishing system elements such as fire water tanks ensure that fires can be effectively intervened.

General Information About Fire Hydrant

The fire hydrant plays an active role in extinguishing fires, especially in the exterior of buildings. The fire hydrant system, which can provide large amounts of water support, prevents flames from re-emerging.

Hydrant system designs are implemented in accordance with NFPA13, Turkey Fire Regulations, TS EN 12845.

There are two types of hydrants.

- **Underground fire hydrant:** The water intake ports of this hydrant type are under the floor and the cover is above the ground. The fire hydrant movement is provided by turning the shaft that controls the fire hydrant valve.

Other parts of the hydrant are cast parts and hose connection fittings.

This type of hydrant can be used in factories, warehouses and fire-sensitive forest areas.

- **Above ground fire hydrant:** This type of hydrant can also be divided into two as dry type and wet type above ground fire hydrant.

There is always water in the wet fire hydrant body and fire hydrant valve system.

This hydrant system is generally used in places with low risk of freezing.

In the dry fire hydrant, the water intake opening is located on the ground.

This fire hydrant system consists of the shaft that controls the fire hydrant valve, spring-loaded check valve, hose connection reconnector and cast parts.

Historical Adventure of Hydrant

Fires can cause serious loss of life and property.

For this reason, ancient people have also made efforts to prevent this disaster.

The use of hydrants dates back much further than today.

It is known that the first hydrants used were earth or metal cast boilers.

In order to ensure the continuity of the water in the metal cast hydrants, wooden pipes with a hollowed middle part were used.

These pipes ensured that these fire hydrants could be fed continuously.

The modern use of the hydrant was first encountered in the American colonial period.

Especially towards the end of the 1800s, hydrant networks became quite common in the country.

What is a Fire Hydrant?

A fire hydrant is a type of reserve tank used in fire extinguishing systems.

Hydrants are equipment that support fire brigades in extinguishing flames that cannot be calmed by first interventions.

Basically, it is used to prevent the fire from spreading further.

How Does a Fire Hydrant Work?

A fire hydrant is an opening that allows fire brigades to make a connection during fire intervention.

With the fire hydrant system placed on the outside of the buildings, water can be added to the fire trucks or hoses can be placed directly into these openings.

When the first response to fires is ineffective, these hydrants rotate and spray water into the area.

The hydrant is opened and closed by turning the shaft with the hydrant switch.

What are the Regulations on Hydrants?

According to the fire hydrant regulations, the following must be taken into account:

- The hydrants to be placed should be positioned in such a way that fire trucks can easily make connections.
- Hydrant system flow rate must be minimum 1900 l/min.
- Flow rates may vary according to the hazard class of the structure.
- The fire hydrant system should be located 5 to 15 meters away from the protected structures.
- For example, in a very dangerous area, the distance between hydrants can be 50 meters, while in a much less dangerous area this distance can be 150 meters.

What are the Dimensions of a Fire Extinguishing Hydrant?

Fire hydrant sizes can be in different sizes.

The most commonly used sizes are 1435, 1750 and 2150 millimeters.

Hydrants with these dimensions can be produced with two or three outlets.

What are the Types of Fire Hydrants?

Hydrant types are basically manufactured in two types: underground fire hydrant and surface fire hydrant.

Fire hydrants produced according to TS 2821 standards have international standards.

Thanks to the durability of cast iron, fire hydrants have a resistant structure.

How many bars should the fire hydrant be?

According to the fire hydrant regulation, the pressure at the fire hydrant outlet should be 7 bar (700 pKa).

Which Areas Are Fire Hydrants Mandatory?

The areas where the fire hydrant system is mandatory include all structures with a zoning plan of over 5000 square meters.

This includes factories, warehouses, industrial areas and buildings.

How to Install a Fire Hydrant?

Installation of the fire hydrant system is very important.

Hydrants are placed outside the buildings at certain intervals according to the height of the fire risk.

Particular care is taken to position them so that fire trucks can easily approach. These hydrants can be fed from the city water network or large-scale fire pumps.

How to Open a Fire Hydrant?

Fire hydrant movement allows the hydrant to open and close.

The hydrant opens when the hydrant switch head is turned counterclockwise and closes when turned clockwise.

After use, the water in the hydrant is drained with a spring-loaded check valve.

Water Mist System



The water mist system, also known as water mist fire suppression systems or water mist sprinkler systems, can be used in fire types where water cannot be used directly. For example, water mist extinguishing systems are used in fires caused by electricity or in areas where documents are not to be damaged. Water mist fire extinguishing systems are a very effective alternative in terms of environmental approaches and reducing water damage in sprinkler extinguishing systems.

What Is a Water Mist System?

A water mist system is an advanced fire suppression solution that uses high-pressure mist to extinguish fires efficiently. By releasing ultra-fine water droplets, it cools the fire and displaces oxygen — controlling flames with minimal water usage and damage.

How Does a Water Misting System Work?

A water misting system operates by atomizing water into fine droplets through specially designed nozzles. These droplets rapidly cool the fire zone and reduce oxygen levels, effectively suppressing combustion.

Benefits include:

- Fast heat reduction
- Minimal water usage
- Safe for electrical environments
- Little to no water damage

Where Are Water Mist Systems Used?

Water mist systems can be seen in many areas where sprinkler systems are used.

Commercial Water Misting Systems

Commercial water misting systems are ideal for:

- Data centers
- Hotel
- Hospitals
- Office buildings
- Industrial plants

Water Mist Fire Suppression System Cost

Water mister system cost varies based on the protected area size and system complexity. However, compared to traditional suppression systems:

- Up to 70% water savings
- Lower maintenance costs
- Smaller system footprint

Why Choose Our Water Mist Systems?

- **Efficient:** Minimal water use, maximum fire control
- **Safe for electronics:** Ideal for sensitive environments
- **Environmentally friendly:** No chemicals or harmful residues
- **Automatic activation:** Fast and reliable fire response

Is a water mist system safe for electrical equipment?

Yes, water mist systems generally are safe for electrical environments due to the minimal amount of water used and the fine mist that evaporates quickly.

What are the benefits of using a water mist system?

Key benefits include rapid fire suppression, reduced water damage, environmental safety, suitability for sensitive equipment, and compliance with modern fire codes.

How much water do misting systems use?

Misting systems use significantly less water than traditional sprinkler systems—typically 0.5 to 1 liter per minute per nozzle, depending on pressure and nozzle size. In contrast, standard sprinkler heads may release 80 to 100 liters per minute, making water mist systems far more efficient and less damaging to property.

Can High Pressure Water Mist Systems Harm Humans?

The water mist velocity is easily reduced after it is discharged, so sprayed water mist sprays are harmless.

What is Water Fog?

Water mist is a fog/cloud of water broken down into small particles. Thanks to these particles, the heat of the environment can be absorbed. In addition, thanks to the expansion properties of these particles, the oxygen content in the environment can drop from 21% to 17%.

What are Water Fog System Components?

Water mist fire extinguishing systems should be designed by making a good hydraulic calculation. After obtaining the necessary approvals, water mist can be applied in all areas deemed appropriate. Water mist system components may include:

- Water mist sprinkler heads
- Water mist spray nozzles
- System mounting elements
- Valves
- Piping systems
- Fitting material