

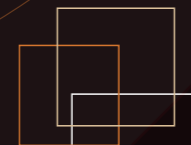
EVERY SECOND
COUNTS, WHEN
A FIRE STARTS!

BONPET
RELIABLE FIRE
EXTINGUISHING
SYSTEMS

25 SEK

+

IT DOES NOT GET ANY SAFER!





YOU AGAINST THE FIRE!

Bonpet - The best way of protecting lives and property.

“ The great and innovative idea brought safety into working and personal spaces. Many costumers already talk about, how the devices saved their lives and belongings. “

“ Only the highest expectations are those, which assure us the perfect reliability of our products, which is proven by the acquired certificate ISO 9001:2008 ... “

Respectfully,

when the fire breaks out, it is too late to think about how you could prevent it. The only right thing to do is, to be prepared all the time. And it is important how you are prepared. The hardest battles are exactly the ones fought against the fire, so it is necessary to invest into fire extinguishing systems, that will activate at the right place and at the right time. We are proud and glad to present to you fire extinguishing systems Bonpet.

Bonpet – unique fire extinguishing liquid, environment and human friendly.

Bonpet liquid is known for its great effect on fire extinguishing with very little liquid and its unique property, which takes away the energy of the fire, and lowers the temperature in the area. Today, after fourteen years of operating not only domestically, but also in foreign markets, Bonpet courageously “lives” in many homes and companies. Slowly, but persistently, piece by piece, we are building the mosaic of succes.

With Bonpet you will be stronger against the fire than ever before.

Bonpet fire extinguishing ampoule and fixed Bonpet fire extinguishing system are fire extinguishing products, which are self-activated. When you install them into your premises, they become a part of your collective and constantly, 24 hours a day, check if a fire broke out. The great and innovative idea brought safety into working and personal spaces. Many costumers already

talk about, how the devices saved their lives and belongings. Our greatest motivation for constant development of new products is exactly your contentment. We try our best to exceed your expectations and to include your needs and wishes for safer living.

We assure reliability with strict measures in the production process.

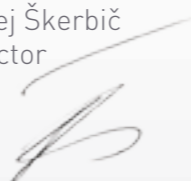
Only the highest expectations are those, which assure us the perfect reliability of our products, which is proven by the acquired certificate ISO 9001:2008, released by Bureau Veritas. The fact that all our devices and systems had turned on and extinguished the threats when it was necessary, also speaks on our behalf.

Bonpet liquid has adopted many shapes.

Your needs are guiding us into a development of new products, which all have in common our unique Bonpet liquid. That is how all our products have been made: automatic fire extinguishing ampoule, fire extinguishing spray, fixed fire-safety system, fire extinguisher, grenade, fire extinguishing trailer and mini fire extinguishing system. Your problems or your restrictions while extinguishing fire, are our challenge, to develop and improve our existing and newly created fire extinguishing products.

With us you are safe against the fire!

Matej Škerbič
director



LET THE CLIENTS SPEAK!

LIST OF BONPET USERS:

BONPET AUTOMATIC FIRE EXTINGUISHING AMPOULE, SLOVENIAN CUSTOMERS:

- Dars
- HSE Velenje
- Petrol
- Petrol Energetika
- KZ Sevnica
- Julon
- ZZV Maribor
- TEŠ
- Cetis
- Telekom Slovenije
- Toplarna Ljubljana
- TET Trbovlje
- Banka Slovenije
- Zavarovalnica Triglav
- Zavarovalnica Tilia
- Zavarovalnica Adriatic Slovenica

BONPET FIXED FIRE-SAFETY SYSTEMS, SLOVENIAN CUSTOMERS:

- Gorenje
- Lafarge cement
- Arcont
- Savske elektrarne
- Skupina Viator & Vektor
- OMV Vrtojba
- Komel Hoče
- TET
- Gospodarska zbornica Slovenije

FOREIGN USERS:

- NATO
- Gazprom Rusija
- Bridgestone
- Mitsubishi
- Siemens
- Toshiba
- Sanyo electric
- HP

... and many other satisfied customers!

“ Both fires were quickly extinguished with Bonpet’s self-activated fire extinguishing ampoules. Damage was minimal due to the efficient fire extinguishing capabilities and it did not affect the ability of transformer distribution station and transformer cell. When the first fire broke out only one contact was damaged, which can be seen from the pictures. Comparing the data we have collected from other fires in transformer cells, we have estimated that due to the fast fire extinguishing, we have saved from 80.000€ to 120.000€ of the average damage cost; in this price the cost of not operating is not included.

Petrol Energetika d.o.o., Jurij Bizjak, field of electricity

“ Bonpet fixed fire-safety system which includes Bonpet liquid, was installed on vacuum line, where the overheating and melting took place. The overheating caused the ignition of a PVC plate, which lead to the activation of fixed fire-safety extinguishing system. This happened on 18th of July 2007 at 1:38 in the morning. Two hours later vacuum line was ready to work, because there was no damage done due to the fast intervention of the fire extinguishing system.

Gorenje d.d., Peter Kobal, assistant manager of investment and maintenance

“ Fire, which has suddenly started in the garbage bin on the container platform, was dangerously close to our offices, but luckily it did not surprise our security guards. With the help of Bonpet’s fire extinguishing ampoule, which was thrown into the center of the fire, the threat was successfully removed and it prevented the fire to spread to the building. Material costs were reduced and lives of our employees were not in danger. Bonpet’s fire extinguishing ampoule has proven its efficiency in accordance with its given properties and assurance.

Promišljenje Snabženije, Russia, Genkin G.F., director



BONPET LIQUID – WATER SOLUTION OF INORGANIC AND ORGANIC COMPOUNDS

Made by a unique formula.

“ The gasses, that are produced during the endothermic decomposition of Bonpet liquid, suffocate fire directly on burning surface ... ”

Bonpet liquid is a water solution of inorganic salts and organic compounds. Contact of a water solution and a fire causes, that the energy from a fire is used to heat and evaporate water and for endothermic decomposition of chemicals added in fire extinguisher.

Endothermic reaction and the release of gasses, suppressing fire on its surface.

The components of Bonpet liquid cause a fast transport of the heat on a chemical part, using water when they get in contact with hot surface. Wet chemicals decompose into gasses (CO₂, N₂) which suffocate fire directly on burning surface, by preventing fire to get to the oxygen.

The gasses suffocate fire directly on burning surface (intensive cooling and approximately 60-times bigger volume comparing to the size of a drop) due to this relatively small quantity of chemicals is needed to effectively put out a fire.

Compared to a gas extinguisher

By its effectiveness of extinguishing can be compared to extinguishing with gas. The difference is that with Bonpet liquid you do not have to fill up the whole room, just a thin layer of few millimeters above the surface of a fire is enough. While decomposing endothermically, Bonpet liquid takes some 10 times more energy from a burning surface, than gas would. Extinguishing a fire with gas can cause re-ignition, if the gas runs off too quickly. However, that cannot happen while using Bonpet liquid.

Compared to a water extinguisher

The amount of water for the same extinguishing effect, is higher when extinguishing with only water, especially because it is really hard to extinguish a fire on a vertical surface. After conducting a series of tests on an A standard fire with 6% of Bonpet liquid solution, our results have shown, that we have used 20-times smaller consumption of wet chemicals than extinguishing with water. This also means, that the collateral damage caused by a fire extinguishing product is smaller when extinguishing with Bonpet liquid.



Bonpet liquid prevents the fire to re-ignite

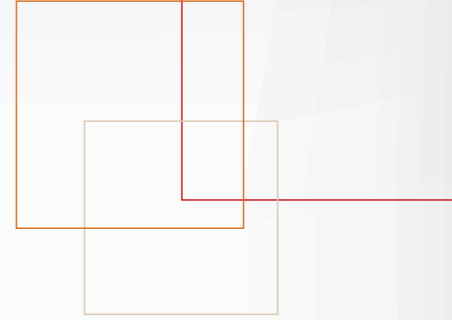
Non-decomposed components of Bonpet liquid that remain on the surface after the fire has been extinguished, have the ability to disintegrate and cool the surface, if there is a slight increase of temperature.

Tests have shown:

After conducting standard fire extinguishing tests our results have shown, that only a small amount of Bonpet liquid is necessary to extinguish a fire. The only thing that needs to be done is to coordinate appropriate input of fluid dynamics, which depends on the intensity and the class of the fire. Experiments were carried out on our own and based on our own findings on the effectiveness of extinguishing and according to the requirements of the examiners.

“ After conducting standard fire extinguishing tests our results have shown, that only a small amount of Bonpet liquid is necessary to extinguish a fire. ”

PRODUCTS, FILLED WITH BONPET LIQUID



	BONPET AUTOMATIC FIRE EXTINGUISHING AMPOULE	BONPET FIRE EXTINGUISHING SPRAY	BONPET FIXED FIRE-SAFETY SYSTEM	BONPET FIRE EXTINGUISHER 2L	BONPET GRENADE	BONPET FIRE EXTINGUISHER TRAILOR	BONPET "MINI" STABLE SYSTEM
Function	self-activated	manual	self-activated	manual	manual	manual	self-activated
Life expectancy of a product	10 years	5 years	unlimited	5 years	5 years	at least 10 years	unlimited
Maintenance cost	none	none	tied by a contract	in accordance with law	none	tied by a contract	tied by a contract
Fires of class	A,B,F	A,B,F	A,B,F	A,B,F	A,B,F	A,B,F	A,B,F
Environmentally friendly	yes	yes	yes	yes	yes	yes	yes
Origin	Slovenia	Slovenia	Slovenia	Slovenia	Slovenia	Slovenia	Slovenia
Dimensions	30 cm length (Ø 60 mm)	30 cm height (Ø 60 mm)	depending on the project	height 370 mm, Ø 100 mm	height 200 mm, Ø 60 mm	BONPET 500: 1235x2435 mm, BONPET 750: 1235x2435 mm, BONPET 1000: 1235x3000 mm	depending on the project
Weight	1200 g	800 g	depending on the project	3700 g	600 g	Bonpet 500,750: 1000kg, Bonpet 1000: 2200kg	depending on the project
Volume	600 ml	600 ml	depending on the project	2 lt	500 ml	500l,750l,1000l	depending on the project
Purpose of use	Self-activated fire extinguishing of an indoor area.	Helping to extinguish any initial fire.	Protecting assets, especially in the case of a open fire and when larger areas or machines are in a fire risk.	Efficient for extinguishing any starting fires.	Helping to extinguish any initial fire.	Extinguishing any type of fire even those that are harder to reach.	Fire extinguishing system for kitchens or other smaller areas.
Warranty	10 years	2 years	1 year	2 years	2 years	2 years	1 year

Fire extinguishing effects: A-regular fire(solid burning material) B-fire of inflammable liquids(oil) F-fire of organic fats and oil



BONPET AUTOMATIC FIRE EXTINGUISHING AMPOULE

The most effective product for extinguishing a fire in small and indoor areas without being constantly present and a fire extinguishing product with an esthetic appearance.

Bonpet's automatic fire extinguishing ampoule is indispensable everywhere you assume that the temperature will rise rapidly, when the fire starts (ceiling or wall close to the potential location for a fire). The best effect for extinguishing fires of class A is when the ampoule covers approximately 8m³ of an area. Suitable for extinguishing fires of classes A, B and F.

Advantages:

- Self-activation.
- Usable in indoor areas.
- Easy to assemble or dismantle.
- It has a 10-year product life expectancy and therefore 10-year warranty.
- No need for maintenance.
- Works for all fires of classes A,B or F.
- Human and environment friendly (no halons).
- Can be thrown into the origin of a fire.
- No false alarms, it activates only when the temperature rises.
- Does not causes any damages during the fire extinguishing and its remaining components are easily cleaned.
- Aesthetic look.
- Slovenian product.

Function

When a fire breaks out in a small enclosed area and temperatures rise, extinguishing liquid simultaneously begins to heat and as a result of that the liquid starts to extend in the glass ampoule. When the temperature of the liquid extinguisher is approximately 85°C ± 5°C the glass breaks into pieces which allows the liquid to drop into the area where endothermic process begins. It takes the energy from the fire and starts to cool the area. As a side product of this endothermic reaction, small quantities of nitrogen and carbon dioxide are released. Their function is to prevent the entrance of oxygen to the burning area. Remaining components that do not decay form a protective layer over the surface of the extinguishing liquid, which prevents re-ignition.

Additional possibilities

We can protect the Bonpet ampoule with a safety net that prevents damaging the glass containing the liquid.

It can also be tailored as a shoulder bag to store the ampoule, if for example a security guard carries it with, when doing longer rounds.



Pick your color

Ampoule is available in many color combinations and in combination with chrome: white, white-chrome, red, red-chrome, blue-chrome, silver.

If you order a large amount of ampoules, they can be manufactured in other colors by arrangement.

We conducted series of testing

In Slovenia Bonpet liquid was tested by The Slovenian National Building and Civil Engineering Institute in Ljubljana (IP 653/99-530-2: extinguishing an oil fire in the kitchen, P 651/99-530-1: extinguishing a fire of highly flammable fluids).

Based on the technical agreement number URSZR GS 01 02 01 00, which was issued by the Ministry of defense of the Republic of Slovenia, Management of protection and rescuing, issued the statement of congruity for the ampoules.

We have added aesthetics to functionality

Even though people should have bought a fire extinguisher, they do not because of their industrial looks. That is why we have developed a fire extinguishing ampoule that has an aesthetic look and looks like a lamp. You can even get them in your favorite color.

TECHNICAL CHARACTERISTICS

Dimensions: 300mm x Ø 60mm

Combined weight: 1200 g

Volume: concealed glass ampoule contains 600 ml of Bonpet liquid.





BONPET FIXED FIRE-SAFETY SYSTEM

Simple, reliable and uncomplicated way to protect your wealth and property, especially in large open areas threatened by fires.

“ Bonpet’s fixed fire-safety system offers not only self-activation but also manual activation for extinguishing a fire. “

Bonpet’s fixed fire-safety system uses Bonpet’s liquid and is was designed as zone fixed fire-safety system, which can be used indoors. It is used to extinguish fires of classes A, B and F. Bonpet’s fixed fire-safety system offers not only self-activation but also manual activation for extinguishing a fire. It is suitable for varnishing chambers, transformers (outdoor and indoor), hydraulic generators, vacuum thermoforming plastic machines, warehouses of inflammable fluids, wood industry (filters, etc.), warehouses, tunnels (in testing), etc.

Advantages

- Does not causes any damages during the fire extinguishing and its remaining components are easily cleaned.
- It is human and environment friendly.
- At regular maintenance – unlimited product life expectancy.
- Cost of maintenance are signed with a contract.
- Slovenian product.
- Free consulting and viewing.

Function

It works by spraying the fire extinguishing liquid. The installation of pipelines and jets is similar to the ones for water spraying system, the only difference is the quantity of extinguishing used. The main purpose when using water

spraying system is, that the spraying water enables intervention of firefighters and that is why it has to spray longer. The main purpose of Bonpet’s fire extinguishing liquid, is to extinguish the fire and because of its effect the spraying time is shorter (around 20 seconds) and it does not need an irrigation. Because of this extraordinary features the tank contain relatively small amount of Bonpet’s liquid (calculated according to an area of extinguishing).

Nitrogen creates pressure in the container with the extinguishing liquid Bonpet. Flow of the extinguishing liquid into the pipeline is suppressed with automated ball valves which are opened by a signal from the fire fighting control centre and thus enable the flow of liquid to the nozzles in the fire extinguishing zones.

Technical agreement

Ministry of defense of the Republic of Slovenia has issued a technical agreement in year 2001, number URSZR GS 01 02 01 00.

Equipment

Fixed fire-safety extinguishing system is formed from elements of mechanical and electrical equipment and is one of the low pressure systems with a working pressure of extinguishing up to 5 bars. Pipe and tube fittings used for construction of a piping system have 7,5 bar of a low pressure test (plumbing installation).

Planning

Based on the inspection of the building and of the drawings of the rooms with technological equipment the designs are elaborated with taking into account the valid rules regulating the field of active fire protection. The determining of the number of fire extinguishing zones which in turn depends on the lay-out of plant and equipment or material in the rooms shall constitute the basis for calculating the necessary quantity of Bonpet liquid. The largest quantity stipulated per each container determines the size of the pressure container - this determines also the size of the module, which contains the elements of the plant with the container.

“ Based on the inspection of the building and of the drawings of the rooms with technological equipment the designs are elaborated with taking into account the valid rules regulating the field of active fire protection. “

Procedure of installing the system

As a part of installing a fixed fire-safety extinguishing system we make and prepare:

- a project documentation, assembly, system pressure test,
- filling in with the fire extinguishing liquid Bonpet,
- inspection of the plant by a company authorized to inspect the systems of active fire protection,
- training of staff who will operate the stationary extinguishing plant (to be appointed by the client),
- certificate of acceptance of the plant by the client.



BONPET GRENADE

With the "throw and extinguish" way we have added a new dimension of convenience and safety.



TECHNICAL CHARACTERISTICS

Containment: 200mm x Ø 60mm
 Combined weight: 600 g
 Volume: grenade contains 500 ml of Bonpet liquid in plastic ampoule

Bonpet's grenades are used for extinguishing fires of classes A, B and F, in smaller concealed places, where with throwing the grenade we can actually extinguish the fire from a distance. Grenade is the most practical fire extinguishing product, which can be attached to an accessible and frequent enough place. It can be used by security guards on longer security patrol.

Advantages:

- The grenade can be thrown in to the source of a fire.
- Does not causes any damages during the fire extinguishing and its remaining components are easily cleaned.
- Human and environment friendly.
- 5-years product life expectancy and 2-year warranty.
- No maintenances costs.
- Easy to assemble or dismantle.
- Slovenian product.

Function:

The grenade is thrown in to the source of a fire.

BONPET FIRE EXTINGUISHER 2L

Easy and safe to use, a fire extinguisher for everyone who likes classics.



TECHNICAL CHARACTERISTICS

Dimension: 370 mm x Ø 100mm
 Combined weight: 3,7 kg
 Volume: 2 l

The fire extinguisher is used for extinguishing initial fires, especially for extinguishing burning fats and oil in restaurants, kitchens, cantinas, engine houses, workshops, farms, warehouses, etc. Fires of classes A,B and F.

Advantages:

- Manual usage.
- Usable everywhere.
- Human and environment friendly.
- Minimal fire extinguishing ability 8A, 113B, 25F.
- 2-year product life expectancy.

BONPET FIRE EXTINGUISHING SPRAY

Effective product for extinguishing all kinds of initial fires.



TECHNICAL CHARACTERISTICS

Containment: 600 ml of Bonpet liquid
 Reach: 4 meters
 Time extinguishing: 40 seconds

Fire extinguishing spray Bonpet is innovative and universal product, reusable and meant for safety purposes. It is an effective side product for extinguishing fires of classes A, B and F in your home, garden, when camping, in the car, etc.

Advantages:

- It is easy and safe to use.
- 5-years product life expectancy.
- No maintenance costs.
- Human and environment friendly.
- Reusable.

Way of extinguishing

Manually. We remove the safety switch, and we point a sprayer to the way of a fire, while pressing on the handle to extinguish a fire, with the distance of at least 1 meter.

BONPET FIRE EXTINGUISHING TRAILER

For extinguishing all types of fire, even on places that are unreachable for firefighting vehicles.



Fire extinguishing trailer is because of its size and mobility ideal for extinguishing fires of classes A, B and F, outdoor or indoor, in industry (chemical, automobile, oil), docks, airports (extinguishing aircraft tires), all kinds of warehouses, varnishing chambers, electrical substation, gas stations and for extinguishing all means of transport, plastics, cellulose, tires, etc.

Advantages:

- At least 10-year product life expectancy and 2-year warranty.
- Environment and human friendly.
- Slovenian product.
- Maintenance is bounded only on switching the Bonpet's liquid.

Available in three versions:

BONPET 500, BONPET 750, BONPET 1000T

Fire extinguishing trailer	BONPET 500	BONPET 750	BONPET 1000
Dimensions	1235x2435 mm	1235x2435 mm	1235x3000 mm
Carriage	1000 kg	1000 kg	2000 kg
Volume of Bonpet liquid	500l	750l	1000l
Length of pipes	25 - 30 m	25 - 30 m	25 - 30 m
Length of spurt	30 m	30 m	50 m
Aggregate	Mitsubishi	Mitsubishi	Mitsubishi
Drive	Petrol	Petrol	Diesel



BONPET "MINI" STABLE SYSTEM

Self-activated, effective and easy to use for extinguishing fires in kitchens or smaller flammable risky areas.

"Mini" stable system is suitable for extinguishing fires of classes A, B, F and it has great effect at extinguishing with a low amount of Bonpet liquid.

Advantages:

- No false alarms, system only activates when the temperature rises.
- Does not cause any damages during the fire extinguishing and its remaining components are easily cleaned.
- Environmentally friendly.
- Slovenian product.
- Unlimited product life expectancy with 1-year warranty.
- Maintenance is bounded only on switching the Bonpet's liquid.
- Extinguishing without sealing a premises (in comparison when extinguishing with CO₂).
- The extinguishing is not subject to prior evacuation of staff.
- It creates a layer on surface to prevent another ignition
- Maintenance is not technically difficult.
- Unlimited options for detecting and consequently extinguishing a fire in the early stages.
- Easy to install the flexible pipes for detecting the fire; the fire can be detected on all the locations with high stage of fire hazard, like on inaccessible locations.
- No outside factor can trigger the detector (like vibration, shock, high concentration of oil, fat or dust).
- Source and voltage cannot trigger the detector.

Function

It functions as a special pipe that acts like a heat detector. The pipe is flexible and elastic and it can be installed everywhere. On one end the pipe is connected to a special valve with a trap, on the other end to a manual trigger. The pipe is under the pressure of 18 bars, diameter is 6 mm. The pipe transforms and activates at the temperature of 160-180°C. In case of a fire high temperature and flames cause the explosion of the pipe which leads to a drop of a pressure in the pipe causing self-activation and extinguishing a fire.

Option of manual activation

It can be triggered by pressing on an activation button at the end of the flexible pipe. A component of the activation button is a manometer that measures the pressure in the pipe.

Pipeline

Behind the tank is a vent DN15 and behind of that vent, is a pipeline made of copper or galvanized iron or stainless steel, depending if it is installed indoor or outdoor. Pipes must be tested with a pressure test of 20 bars.

TECHNICAL CHARACTERISTICS

Volume of 6l reservoir: maximum of 5 pouts, the distance between pouts must be 80 cm, and the combined length must not exceed 4 m.

Volume of 9l reservoir: maximum of 7 pouts, the distance between pouts must be 80 cm, and the combined length must not exceed 6 m.

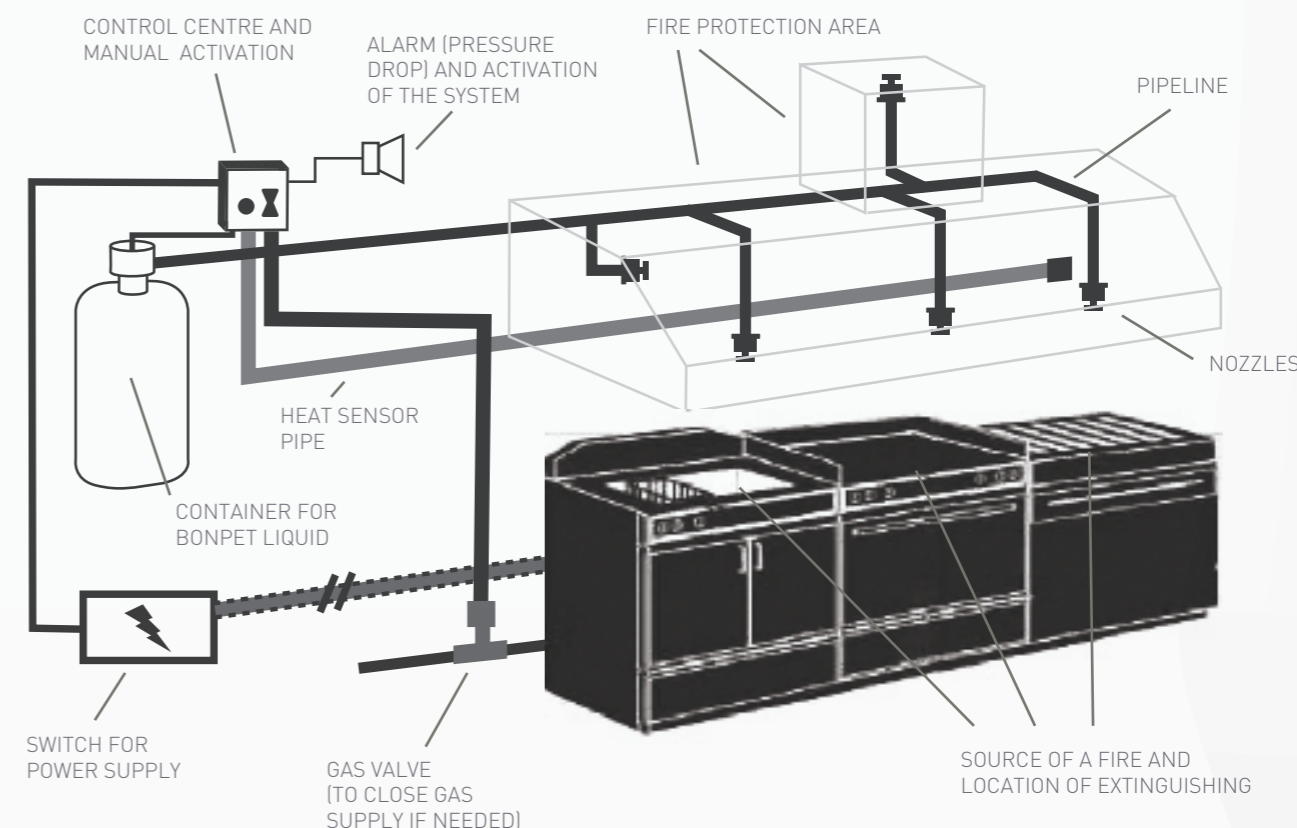
Volume of 12l reservoir: maximum of 9 pouts, the distance between pouts must be 80 cm, and the combined length must not exceed 8 m.

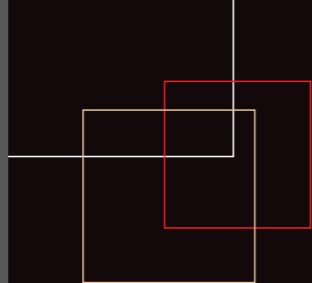
Reservoir must be under constant pressure of 16 bars (at the temperature of 20°C).

Working temperature of the system is from 0°C to 60°C.

Propellant is nitrogen (N₂).

Piping and nozzles must be installed above a kitchen block and in the catch drain canals. Piping, dimension and location have to be certified by registered engineer.





BONPET WORLDWIDE



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