CEASEFIRE

WORLD SERIES

Kitchen Firefighting Range

www.ceasefireworld.com


Made in India.
Ready for the world.

THE CEASEFIRE WORLD

Ceasefire is a fast-growing global brand that protects millions of people across the world every single day.

For decades now, we've pioneered fire safety in India, through firefighting systems and technologies that are unique to Ceasefire, and built at the very forefront of new-age technology.

Since its inception, Ceasefire has successfully manufactured, tested and sold hundreds of thousands of extinguishers - in India and other parts of the world.

360 degree fire safety and security portfolio. Continuous innovation to create next-gen hi-tech products. A strong commitment to the Earth. High product quality standards. Strong execution. Competent after-sales service.

All this allow us to command a 20%-60% premium on our products. But rather than invest all our money in advertising and marketing budgets, we put it back into research and development. Yet, we are one of the highest recalled brands in the market, with the name Ceasefire becoming synonymous with fire safety.

Today, backed up by suppression systems, Watermist and Foammist systems, specialised gas total flooding systems, in-panel tube-based suppression systems and special application fire extinguishers, to name a few, our team of 2000 trained and enthusiastic professionals penetrate new markets and take Ceasefire to the world.

Our customer list is 500,000 strong, with 3000 new customers getting added every month.

CEASEFIRE AND THE INDIAN SUBCONTINENT

Ceasefire is ranked amongst the top fire safety brands in the Indian subcontinent.

Airports, aircrafts, the Indian Railways, ISRO, ships, factories, warehouses, malls, stadiums, offices, cars, hospitals, schools, houses, Indian Ordinance Factory, and DRDO Labs across the country are protected by Ceasefire.

And of course, millions of Indians who use these facilities.

Today, a Ceasefire product is sold every 60 seconds, and used in a real life fire emergency every 5 minutes. We've never let anyone down.

THE MANUFACTURING EDGE

In a market where many manufacturing units are little more than assembly operations, Ceasefire's products are deeply researched, quality-tested, and engineered to perform to the highest standards. Manned by over 200 skilled and semi-skilled employees, our manufacturing unit is equipped for backward integration on virtually every component of an extinguisher, from its outer body to the tiniest valve. This means a greater cost to us, but the resulting quality is faultless. As a result, Ceasefire products command a premium in the Indian market; and many of them are so unique in function and application, they have no competition in the market at all.

Ceasefire's products aren't just assembled, they are engineered to perfection and tested ruthlessly.

Deep investments in research and development help Ceasefire design products at the in-house Design Centre; and produce critical components at the hi-tech Ceasefire manufacturing unit in Dehradun, India.

The facility has an in-house valve manufacturing unit, and a world class deep draw machine equipped with an advance hydraulics system.

There's also an advanced MIG CO_2 welding station with motorised technology that creates the strongest, smoothest seam joints.

A state-of-the-art paint shop for weather protection and seamless finish ensures no cracks, rusting or flaking.

And a testing lab where a battery of the most stringent in-ward and out-ward tests determine that only the best quality products are sold.

With a total production capacity of 4.8 lakh product per annum, this ISO 9001 certified facility complies to OHSAS, and has PED approval for pressure filling.

Finally, tie-ups with the world's leading OEMs to customise components to our exact specifications ensure nothing but the best products.

Products that guarantee quality. Products that comply with EN3, MED, EN1866, PED and FPC requirements. Products that are ready for the world.

PRODUCT INNOVATORS. MARKET LEADERS.

Ceasefire was built to have a comprehensive product eco-system, with the infrastructure, technology and knowhow to offer complete solutions to any and every industry.

When you partner with us, you get access to our state-of-the-art products, specialised design team, knowledgeable manufacturing team and enthusiastic sales team.

The Ceasefire Eco-system:

Wide range of Portable & Trolley Mounted Fire Extinguishers

ABC Powder, Water & CO_2 based extinguishers. Certified to EN3 / EN1866 standards.

Portable & Trolley Mounted Watermist-based Extinguishers

Exclusive range of Watermist-based portable and trolley mounted fire extinguishers, ready to fight large fires without any collateral damage.

Special Application Fire Extinguishers

Feature-full Clean Agent, Wet Chemical and Special Agent for Class B and Metal Fire-based fire extinguishers.

Designer Series Home & Car Fire Extinguishers

ABC Powder & Clean Agent-based fire extinguishers that come in aesthetically pleasing designs and colours.

In-Panel Tube-based Fire Suppression System

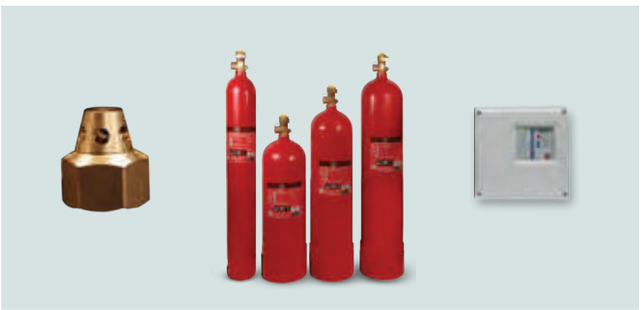
Certified by LPCB for LPS1666 Standard Certification for 2 and 4 kg Direct HFC227ea and HFC236fa gas variants.

Kitchen Hood Fire Suppression Systems

Watermist and Wet Chemical-based Systems. Certified by LPCB for LPS1223 Standard Certification.

Watermist-based Suppression Systems

Watermist-based Systems for exclusive application in Offices, Warehouses, Factories, Generator and Transformer areas.



Specialised Gas-based Suppression Systems

HFC227ea-based System, available in both Engineered and Pre-engineered variants.

Hydrant Systems

Completely Independent Watermist-based Hydrant Systems.

Special Firefighting Systems

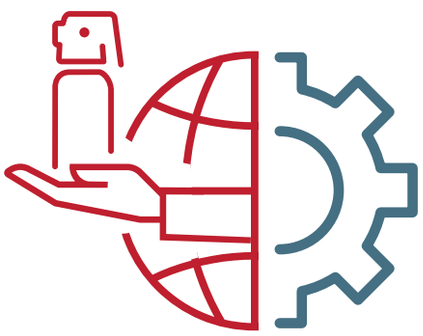
Advanced firefighting systems that are the first of their kind in the world.

Technological leader. Demand generator.

As technology leader and continuous product innovator, Ceasefire plays a dual role.

1

As a Demand Fulfiller in existing markets, with superior quality products that command a premium of over 20%.



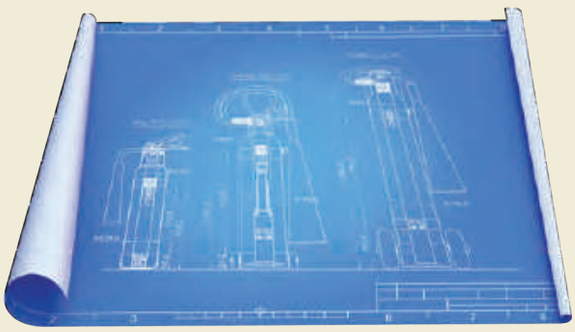
2

As a Demand Generator, we introduce new products in new proprietary markets to create demand.

Through this extensive fire safety product portfolio, unmatched quality and knowhow, and by bringing high end products to existing, new and lower market denominators, we've been known to open market opportunities exponentially for Ceasefire's Partners.

PARTNER WITH CEASEFIRE.

When you join hands with us, you get all Ceasefire's facilities, services and advantages at your disposal.



Design and technology support to Business Partners is part of Ceasefire's offering. We've put together a customised knowledge transfer module that makes Partners totally independent when it comes to product design capabilities. It's all taken care off by our team of highly experienced engineers and designers, all specialists in their field and informed on the latest global fire safety norms and standards.

Ceasefire's support extends to training the Partner's Technical Execution Team and offering a standardised module for a **Product Demonstration Facility set up**.

Ceasefire has embed training and development into our system, building a unique competitive advantage.

Ceasefire Academy of Forging Excellence (CAFE):

Most advanced online training platform that's has an outstanding reservoir of knowledge in the domain.

Blended Learning Programs:

Combine classroom led learning with on-the-job training.

Ceasefire Advanced Intelligence Centre (AI Centre):

A state-of-the-art product demonstration and training facility where real life fire simulation exercises are carried out.

Ceasefire also brings strong marketing support to the table. Marketing collaterals, including brochures, flyers, product films and customer testimonials, are always available. The website and mobile apps created are designed for maximum viewer convenience. Engaging social media campaigns build thought leadership awareness. Aggressive BTL and on-ground promotions run through the year to keep the brand visible.

And finally, the central marketing team creates scalable customer promotion modules to generate more business.

In-house Customer Connect Cell

In-house Digital Marketing Expert

A full-fledged Creative Agency that provides art and copy support

In-house SMO Team

In-house SEO Expert

In-house Customer Enquiry & Complaint Management System

This is the time to Partner with Ceasefire - a company that's set to define the markets of tomorrow.

INTERNATIONAL CERTIFICATIONS. ONE COMPANY.

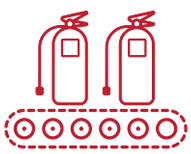
Ceasefire's quality is endorsed by leading certification agencies across the world. We're so confident about our manufacturing process and finished products, that we've submitted our products before every leading certification agency across the globe - to see if they hold up against the most stringent, highly brutal testing criteria. Not only did every Ceasefire product meet every parameter, but in some cases surpassed it. Today, Ceasefire products conform to the highest global standards, and carry a host of national and international certifications; including EN3, EN1866, MED, PED, ISO 9001 and OHSAS.

What do these Global Certifications actually mean?

Ceasefire has product quality certifications from multiple leading certification agencies. Each of these agencies epitomise safety and performance standards, and have laid out some of the most stringent test criteria in the world. Each certification dictates unique testing criteria. MED, for example, rigorously tests products for functional efficiency in high humidity areas. PED puts special emphasis on pressure holding capabilities. LPCB & BSI take a more holistic view of things, thoroughly checking everything from the procurement of raw materials to the production line, the performance of the product on a customer's premises, and also the after sales service provided. Ceasefire has passed them all.

The very fact that our products qualify against these standards is a testimony that we take our job of saving lives very, very seriously, and continue to raise our product quality standards.

Tests at European Union-certified Labs



Factory Production Control (FPC)

Audits on After Sales Services

Market Checks

Ceasefire's Product Certifications:

BIS:
The ultimate, all encompassing Indian test standards set to ultimate Indian conditions.

EN3 (LPCB & BSI Standards Certification):
The small, portable extinguishers' test comprises of 10 progressively tough tests.

EN1866 (LPCB & BSI Standards Certification):
This test is set for larger extinguishers, like trolley-mounted extinguishers.

MED (Marine Equipment Directive - LPCB Certification):
A benchmark certification for products to be used on ships, offshore oil rigs and other marine industries. This difficult certification guarantees that the extinguisher is capable of withstanding high salt and humidity.

PED (Pressure Equipment Directive - LPCB Certification):
PED is one of the biggest European standards. It involves a specialised test that checks the extinguisher's pressure, welding, documentation and the manufacturing process of the product.

Horseshoe Mark (LPCB Certification):
This is LPCB's main certification mark that's awarded to products which have all the above certifications in place.

Kite Mark (BSI Certification):
By British Standards Institution, it's awarded to products that have EN3, EN1866 and FPC certifications

Ceasefire's Kitchen Fire Suppression System Range, including both watermist and wet chemical based suppression systems are certified by LPCB for LPS 1223 standard.

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KITCHEN FIRE FIGHTING RANGE

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CEASEFIRE'S KITCHEN FIREFIGHTING RANGE

INTRODUCING THE CEASEFIRE KITCHEN FIREFIGHTING RANGE

There is no denying the fact that fire is central to cooking. Every day, restaurants, cafés, bakeries and commercial kitchens use it to create a myriad number of delicacies. However, the liberal use of fire, and the presence of combustible substances like oil, make it almost easy for an accident to flare up.

In large hotel chains with hectic, time bound meal services keeping the staff rushing around, these accidents are just waiting to happen. Such an accident can shut down your operations for several days, causing a substantial loss of business revenue. Not to mention the irreversible damage to the reputation of the brand you've carefully built over the years...gone in minutes.

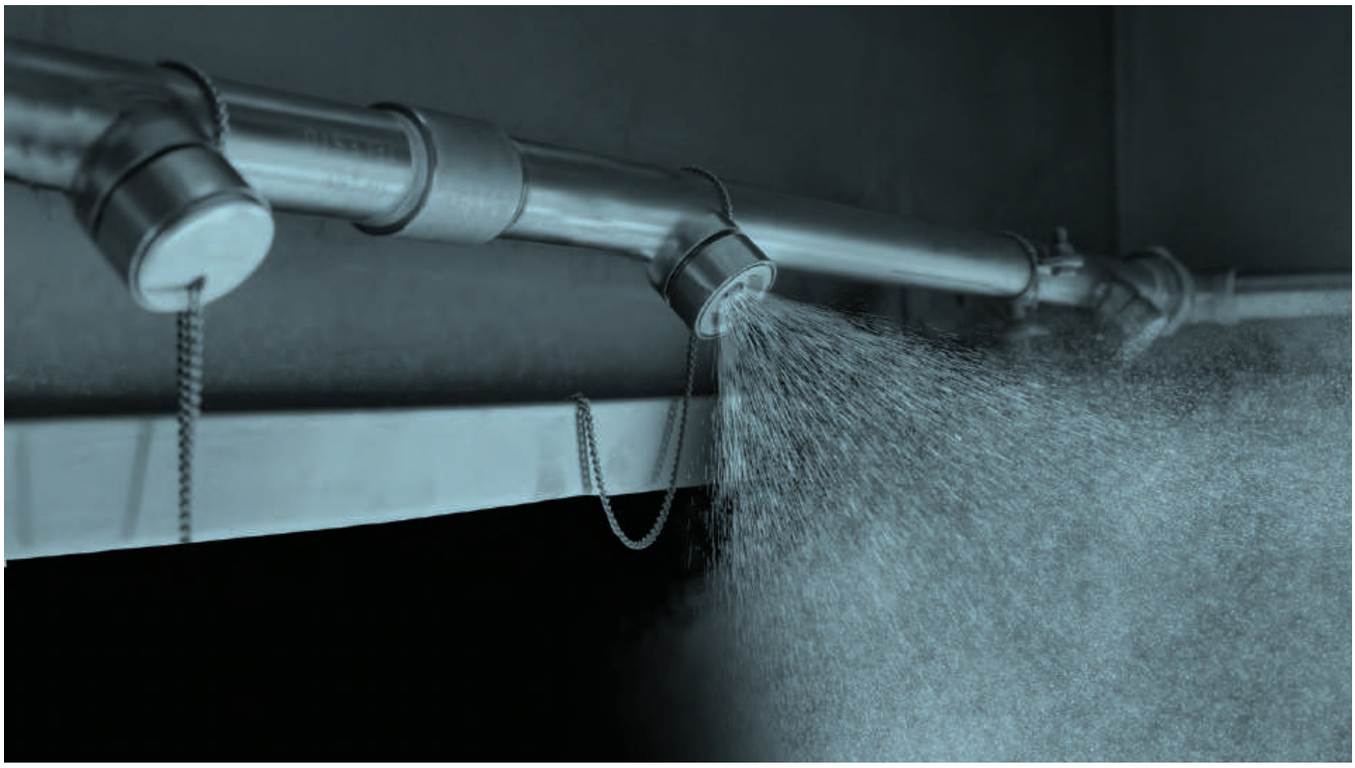
While fires on their own are dangerous, kitchen fires take things to a whole new level.

Kitchen fires are some of the toughest, fiercest fires to fight and control. Cooking areas and kitchen hoods are particularly prone to accidents.

Once oil reaches a certain temperature, it releases fumes that burn at a lower temperature than oil. In seconds, this can turn into a fire situation threatening to get out of control, reaching temperatures as high as 350°C, endangering precious lives and destroying expensive kitchen equipment. What's more, with other inflammables like LPG on the premises, the danger is considerably aggravated.
Until recently, the only way to put out an oil fire in the kitchen was by using conventional extinguishers, which destroyed all the ingredients in the kitchen, not to mention being harmful to the environment as well.

There was an urgent need for specialised extinguishers and systems to come to the rescue. That's where Ceasefire comes in. Developed using cutting-edge technology, the Ceasefire Kitchen Firefighting Range offers 360° protection for your establishment's kitchen. These lifesaving equipment are so advanced they've been certified globally to be among the best in the world. Which is why, whether it's a small café or a large industrial kitchen, Ceasefire is equipped and ready to protect.

Watermist Kitchen Firefighting Range



The Watermist Kitchen Suppression System:

The world's first-ever, automatic kitchen suppression system powered by revolutionary Watermist technology. Its heat-sensing tubes and nozzles can detect and stop any kind of kitchen fire - with no collateral damage.

The Pre-engineered Range Of Kitchen Suppression Systems (Watermist):

These pre-engineered Watermist systems are designed to protect different hood sizes against fire - with no collateral damage.

The Ceasefire Watermist Portable Extinguisher (CHPS):

A standalone Watermist-based fire extinguisher, the CHPS can take on and bring down an oil fire with ease.

Wet Chemical Kitchen Firefighting Range

The Wet Chemical Kitchen Suppression System:

Powered by a Wet Chemical, this automatic kitchen suppression system with state-of-the-art heat-sensing tubes and nozzles can detect and stop even the biggest kitchen fire - without flooding the kitchen.

The Pre-engineered Range Of Kitchen Suppression Systems (Wet Chemical):

Ceasefire's pre fabricated Wet Chemical-based fire extinguishers are specially designed for kitchen hoods and built to fight oil fires without any flooding-related collateral damage.

The Ceasefire Wet Chemical Portable Extinguisher:

Ceasefire's Wet Chemical-based fire extinguishers are specially designed to fight oil fires in kitchens, without any flooding-related collateral damage.

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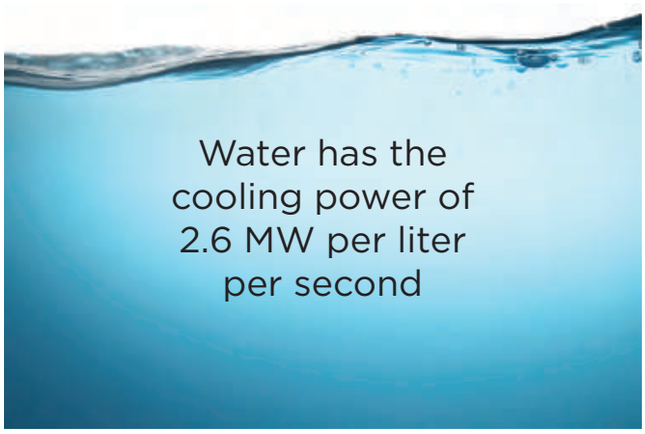
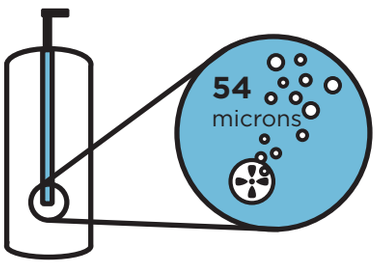
WATERMIST KITCHEN FIREFIGHTING RANGE

HARNESSING THE POWER OF WATER, AND MULTIPLYING IT.

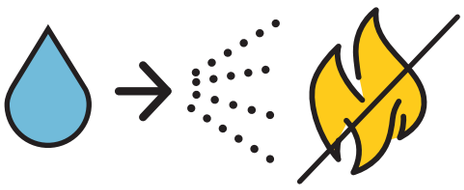


It's common knowledge that there is no extinguishing agent more potent than water. With it's massive cooling power of 2.6 MW per liter per second, water kills even the largest of fires in minutes. But even fire's worst adversary has its shortcomings. Using water on oil fires or an electrically started blaze can be a fatal mistake. What you need is cutting-edge technology that changes water's natural physical form, so that it can fight kitchen fires without causing any collateral damage.

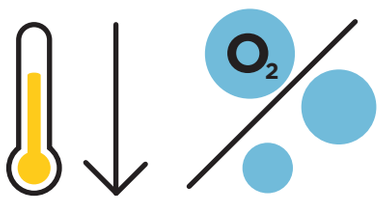


First, the Multi-Rotors and Nozzles located within the **system turn water into droplets of 54 micron size** by mixing it with air in a pre-set proportion.

This makes it the only system of its kind that combines two revolutionary technologies – Watermist and stored pressure – into an extinguisher that **can take down even the largest of fires, including oil and electrically started fires.**



This produces Watermist, which **increases the coverage area of water to fight fires many times over.** The stored pressure technology is used to deliver Watermist with a kinetic force strong enough to overcome the fire's own convection currents.



When Watermist falls on the fire, it **rapidly brings down the temperature to below combustible levels, cuts off the oxygen supply and kills the flames.**

ENVIRO SERIES / ENGINEERED

THE WATERMIST KITCHEN SUPPRESSION SYSTEM

CERTIFIED BY LPCB FOR LPS 1223 STANDARD

The Watermist Kitchen Suppression System comes with an advanced detection mechanism. Its Pneumatic Heat Sensing Tubes run through the length of the hood, covering all vulnerable areas giving continous protection.

In an event of a fire, these tubes (pressurised with N_2) burst at a pre-set temperature - creating a puncture in the tube - allowing the pressurised nitrogen to escape and the pressure to drop. This fall of pressure activates the valves, allowing the rotors placed inside them to mix air and water in pre-set proportions.

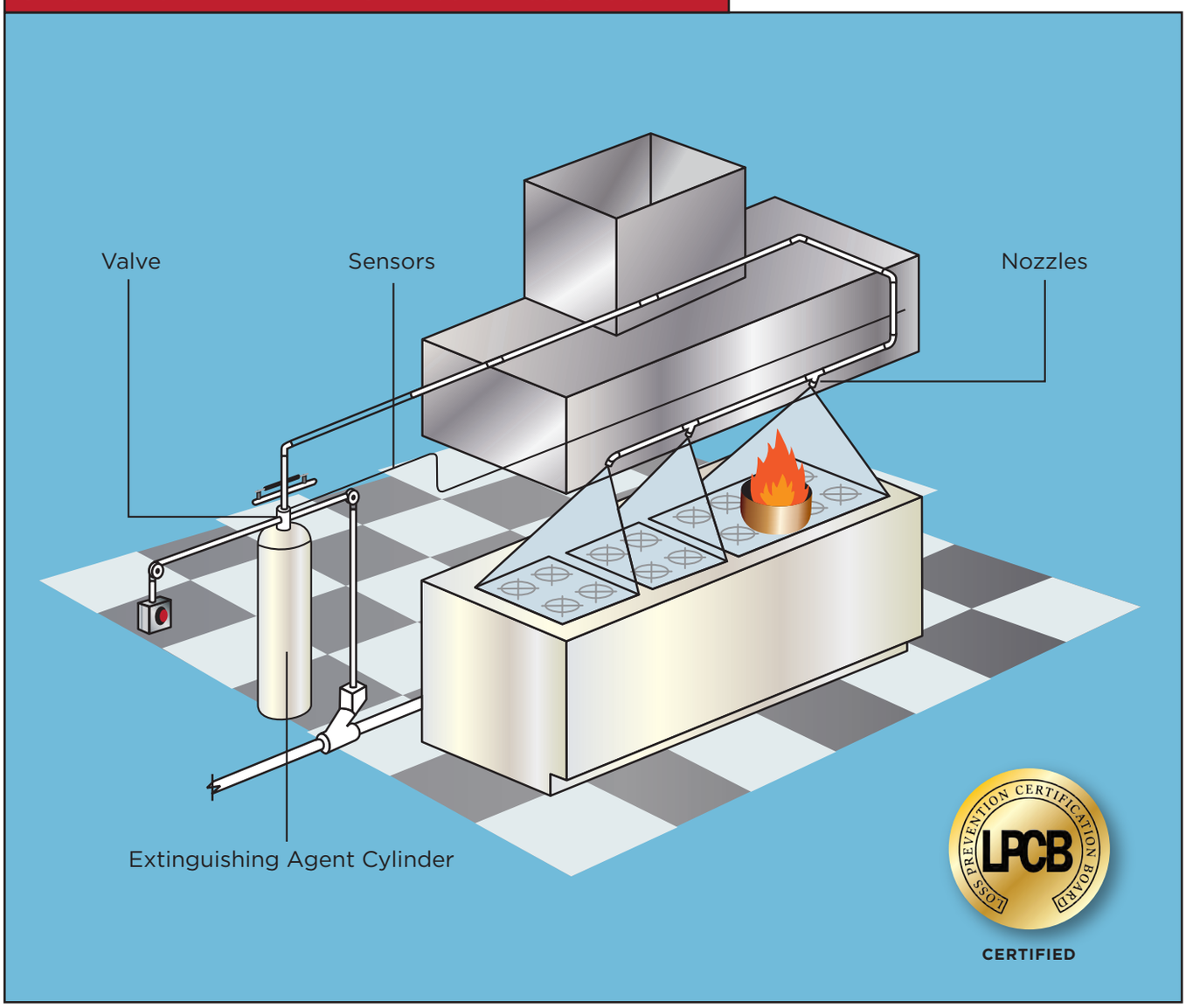
When these particles of air and water reach the nozzles, their combined velocity atomises the water particles to create micro-mini droplets of 54 microns. And it is this Watermist that's propelled through the nozzles onto the fire. Quickly turning into steam, blocking the oxygen supply, and bringing the temperature to below combustion levels.

The huge benefit of Watermist is that it is an absolutely clean extinguishing agent. Which means it doesn't cause any damage; either to the expensive kitchen equipment or food items. Allowing the kitchen to get back into action without any significant downtime.

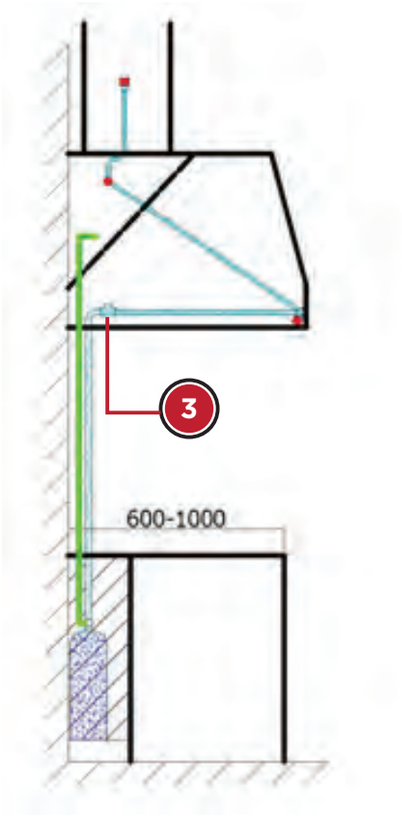
Another big advantage of the system is the Heat Sensing Tubes, that provide uniform, multi point detection throughout the length of the hood; unlike the fusible plug/link based detection which is built to detect fires right below the point where they are placed. This enables the chef to move the hot area as per the requirement of the meal service, without any hassle.

The nozzles too are versatile, and are designed to extinguish fires arisen due to deep frying, shallow frying, baking, grilling or roasting.

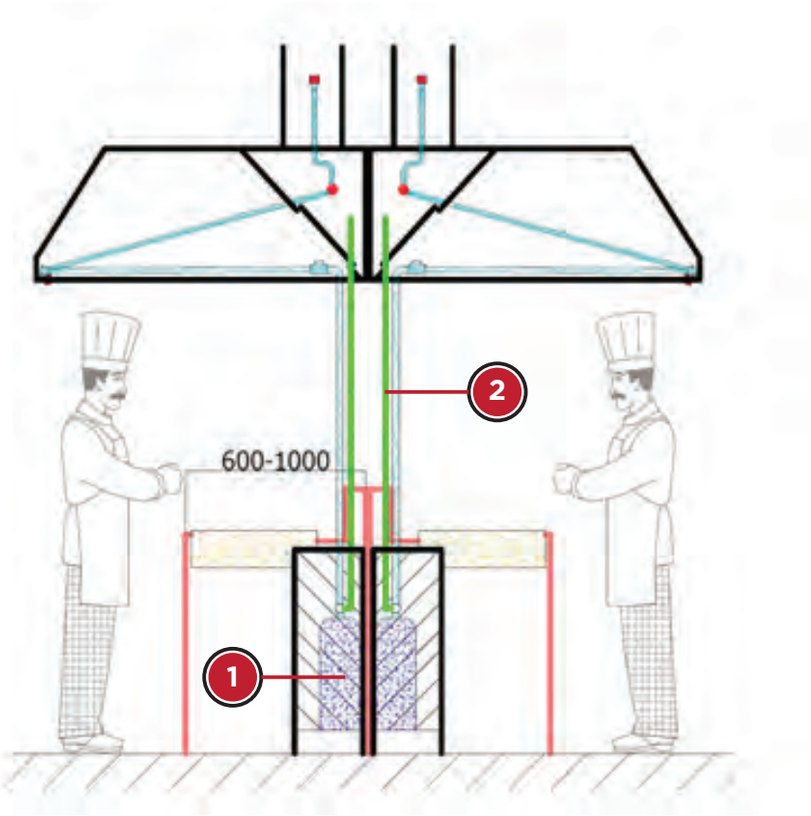
CEASEFIRE'S WATERMIST KITCHEN SUPPRESSION SYSTEM



Key Components of the System



View from the side of the wall mounted hood.



View from the side of “hanged” hoods.

1 Supply Unit
The supply unit is based on rotors placed in cylinders filled with demineralised water (50-72% volume of cylinder) and gas compressed to 15+1 bars. The quantity of used rotors, cylinders and their volume depends on the size of the protected kitchen. Rotor assembly is designed to produce a pulsating flow of water, by supplying the fire extinguishing system with the proper proportions of gas and water.

2 Piping
The fittings are made of 304 grade stainless steel. The piping length and diameter depend on the size of the fire extinguishing system.

3 Multi-nozzle and Single Nozzle Heads
These H-type heads are provided with CSFH nozzles. Similar CSFH heads are also used separately in the area behind filters or in the ventilating hood. Protection caps are used to protect the installed heads against contamination of the nozzle hose during normal operation of the kitchen. The systems use several types of heads, depending on the size of the kitchen being protected.

4 Detection and Actuation Unit
The detection system gives the signal to the actuation unit, which automatically starts up the fire extinguishing system. The system has manual actuation too.

CEASEFIRE'S WATERMIST KITCHEN SUPPRESSION SYSTEM GIVES YOU MORE:

- LPCB Certified System
- No collateral damage and zero downtime due to contamination thanks to Watermist
- An eco-friendly alternative to conventional extinguishing systems
- Works on class A, B, C, F (oil) fires and fires involving electrically charged devices
- Specially designed nozzles that use minimum water and give maximum extinguishing power
- Its heat-sensitive tube offers superior uniform protection as compared to conventional Point Detector-based Systems
- Available in 25 liters and 50 liters

Features of the Watermist Kitchen Suppression System

	24-hour Protection - Automatic detection and actuation controls ensure fire protection is always 'up'.
	Multiple Triggers - The system can be triggered either by the manual actuation system or the automatic detection system.
	Highly Effective - Watermist prevents re-ignition by cooling down the temperature of the heated oil.
	Minimal Downtime - The clean water leaves no toxic chemicals, doesn't damage eatables and reduces post-fire damage, ensuring the kitchen is back in service quickly.
	Unobtrusive Design - Flexible piping configurations allow for a streamlined design and convenient installation that won't interfere with kitchen workflow.
	Highly Reliable - A fully assembled and 100% tested Mechanical Control Head ensures reliable operation. Pressure gauges on the steel cylinders mark the gas levels, allowing maintenance staff to replenish it whenever required. Protective chrome nozzle covers keep the nozzles free of contamination and blockages caused by grease or other cooking by-products.

	Highly Flexible - Available in a variety of sizes that can be customised as per the application.
	LPCB Certified System
	3 Variants - Available in three variants – 25 liters and 50 liters.

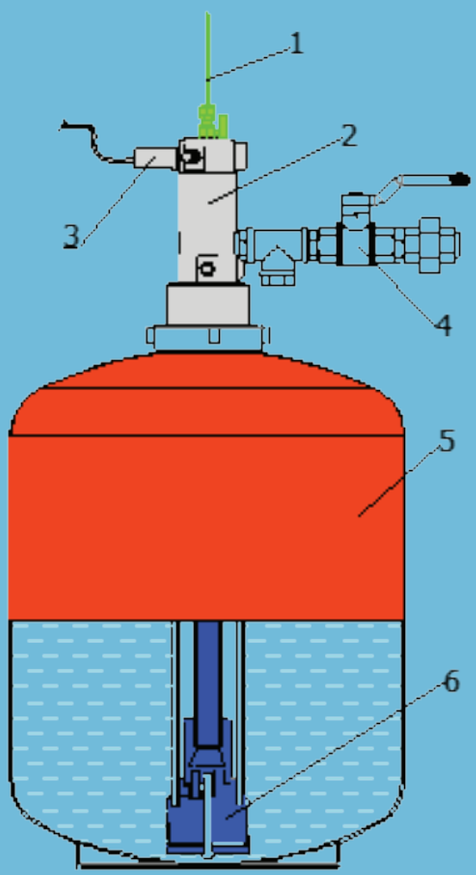
Watermist Kitchen Suppression System Components

1. SINGLE CYLINDER SUPPLY UNIT

The supply unit is based on rotors placed in cylinders filled with demineralised water (50-72% volume of cylinder) and gas compressed to 15+1 bars. The quantity of used rotors, cylinders and their volume depends on the size of the protected kitchen. Rotor assembly is designed to produce a pulsating flow of water by supplying the fire extinguishing system with the proper proportions of gas and water.

Various types of supply units can be used for kitchen extinguishing systems. They can differ with the number of cylinders, actuation mechanism and detection signal type.

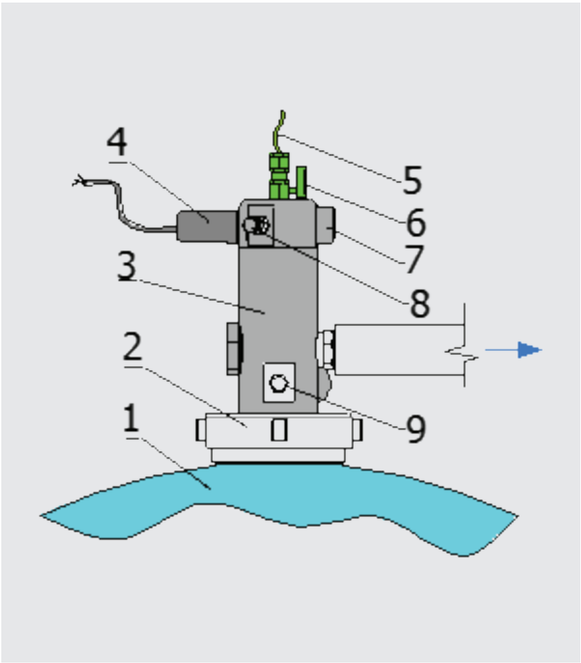
Cylinders with rotors inside are filled with water up to 72% of the cylinder capacity and nitrogen/air is under the 15 bar pressure based on the following calculation:
3 liters of water per main nozzle are used in the system and 2 liters per nozzle behind the filter and in the duct. The cylinder(s) must be filled with water up to maximum 72% of the total cylinder volume. The remaining volume must be filled with gas pressurised to S15+1 bar.



An example of the supply unit wherein one cylinder is placed with a multi-rotor set containing four rotors.

1. Detection tube
2. Indirect differential valve
3. Pressure switch
4. Servicing valve
5. Cylinder
6. Multi-rotor unit

2. INDIRECT DIFFERENTIAL VALVE



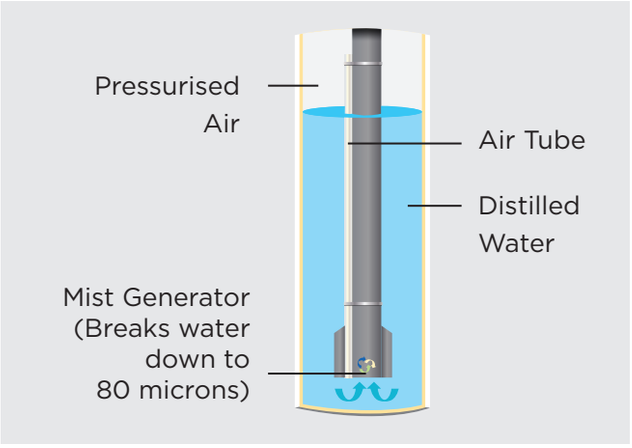
A pneumatic differential valve is used for pressure detection – fusible plug or pneumatic tube detections. A pressure drop in the system opens the valve.

An indirect valve actuation unit is used with single cylinder supply units with pressure detection.

1. Supply cylinder
2. Cylinder nut
3. Indirect differential valve
4. Pressure switch
5. Detection tube
6. Detection servicing valve
7. Pressure gauge
8. Gas filling valve (to min. 4 bar)
9. Gas filling valve (to 15 bar)

3. MULTI-ROTOR SET

The rotors installed in cylinders produce a mixture of water and nitrogen/air, which flow in a pulse manner. After system actuation, the medium flows out of the cylinders through the manifold into the main system pipe and further, via the pipeline, into the nozzles located under the hood.



4. PRESSURE SWITCH

Every supply unit is equipped with a pressure switch, which gives a signal when the system is actuated. The signal can be used to cut off the power supply to the protected kitchen.

Optionally, one more pressure switch can be used to relate information of a pressure drop in the system via a local alarm system.

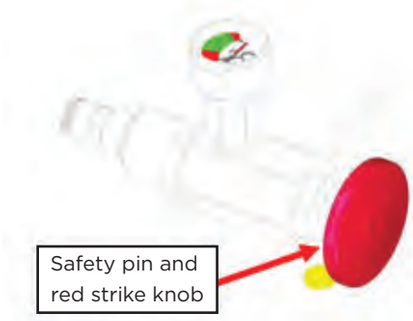
5. CEASEFIRE HEAT SENSING TUBE

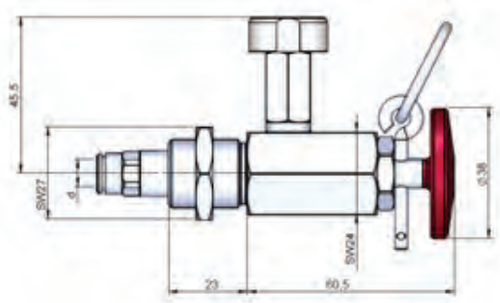
In the Watermist Kitchen Suppression System, the standard fire detection device is the Ceasefire heat sensing tube. Ceasefire's heat sensing tubes are made of high-tech plastic and are developed especially for the installation and application in automatic fire extinguishing systems.

The prescribed operating pressure is applied to the heat sensing tube after the proper installation. Due to the thermal material properties and the inner over-pressure, the heat sensing tube will burst when touched by a flame or subjected to an excessive heat increase, therefore functioning as a reliable detector in the case of a fire.

6. MANUAL ACTUATOR

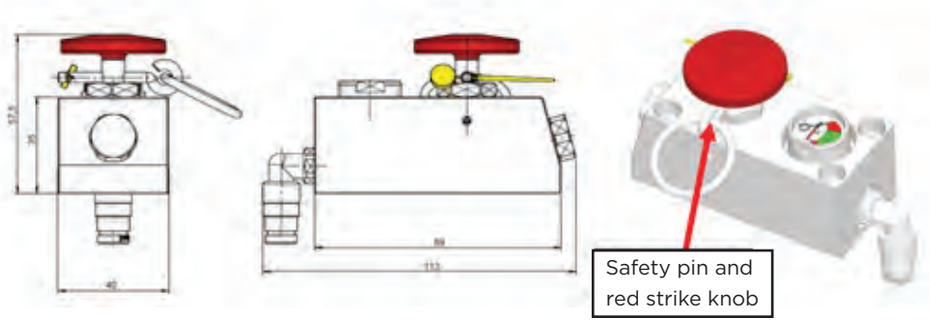
Manual triggers are installed in or at the end of the detection line and simulate the heat sensing tube to burst when actuated. The drop of pressure thus generated triggers the valve.





The installation of a manual trigger is mandatory.
To actuate the manual trigger, pull the safety pin and press the red strike knob.

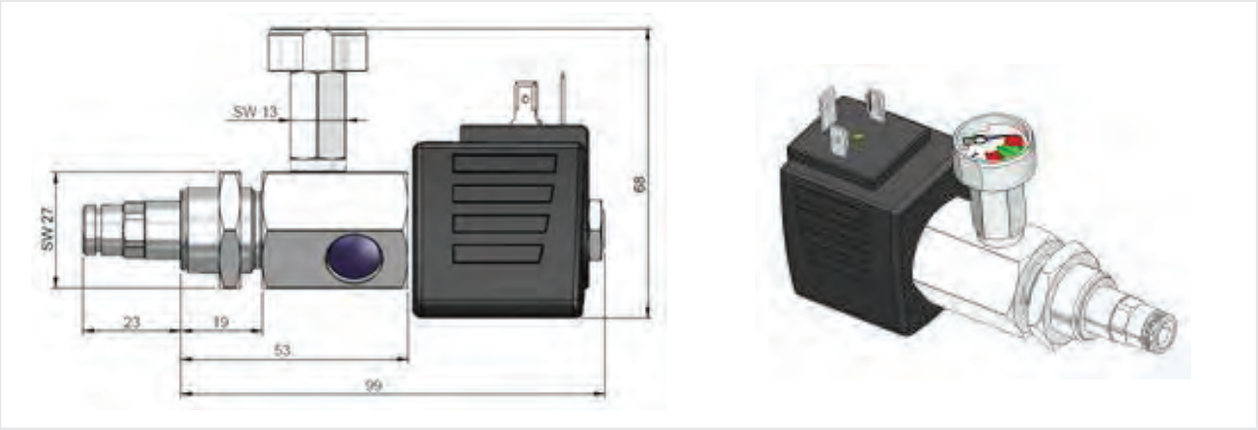
7. CEASEFIRE MULTI-BLOCK



8. ELECTROMAGNETIC TRIGGER

The electromagnetic trigger provides the possibility of actuating the system by an electrical signal - a manual-electric triggering - by means of electronic buttons or switches located at various places and as far away from the extinguishing system as possible.

Using an electromagnetic trigger also minimises the risk of the operator coming into contact with the fire when manually triggering the system (depending on the position of the trigger).



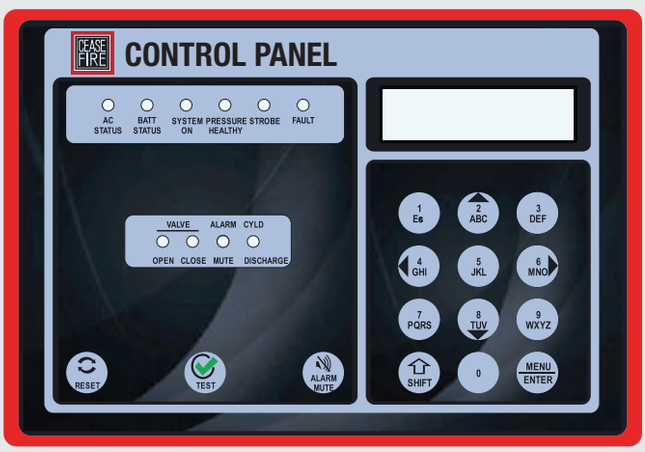
9. PIPING

The piping is a set of pipes and different hydraulic elements necessary for connecting the hydraulic elements with the fire extinguishing heads. The system piping is made of stainless steel pipes. Threaded junctions with typical plumber thread are preferable.

Hood piping is fixed by 3/8” holders and head support.

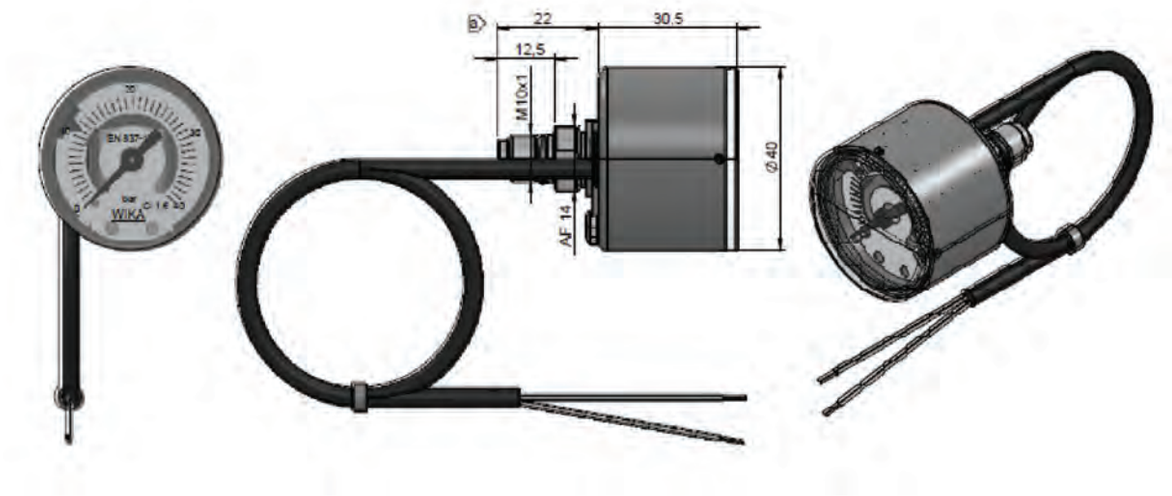
10. OPTIONAL CONTROL PANEL

The Control Panel not only helps monitor the readiness of your kitchen suppression system, which ensures you’re not left high and dry in an emergency situation, but also raises the alarm.



- **Activates alarm**
- **Compatible with third party systems**
- **Helps check the readiness of your kitchen suppression system**

11. CONTACT GAUGE WITH SWITCHING CONTACT



This is used to switch off the equipment when the extinguishing system is actuated. The signals can be used to cut the energy supply and, for example, switch off the extractor fan. The heat source can be stopped, as well as the extraction, but this is, however, not compulsory.

A ventilation system left running can move any smoke or exhaust gases to the outside. The decision for this option lies with the system designer, who implements it according to the customer's requirements.

Pressure range	:	0 – 40 Bars
Set points	:	11 Bars or 17 Bars
Switching mode	:	Without pressure -->Contact close (NC)
Pressure above switch point -->	:	Contact open
Switching tolerance	:	±2.5% Full scale value

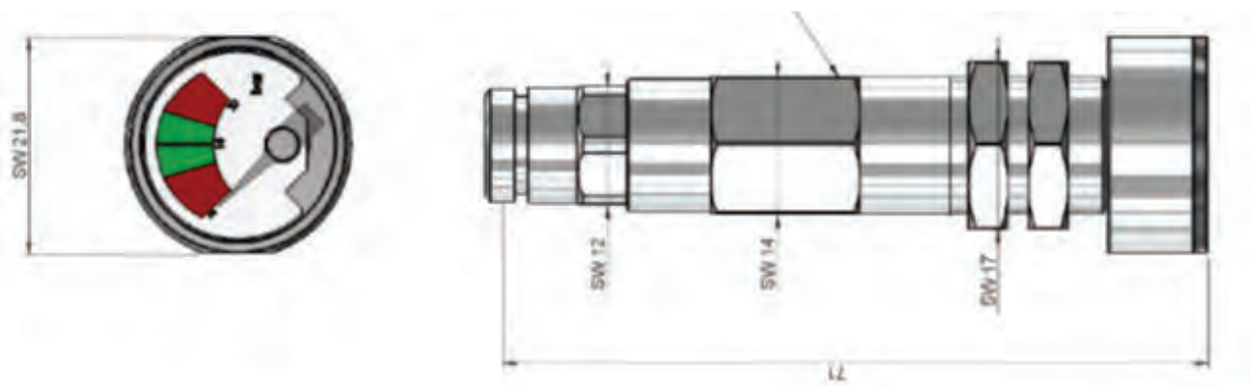
Pressure gauge with limit signal transmitter type:

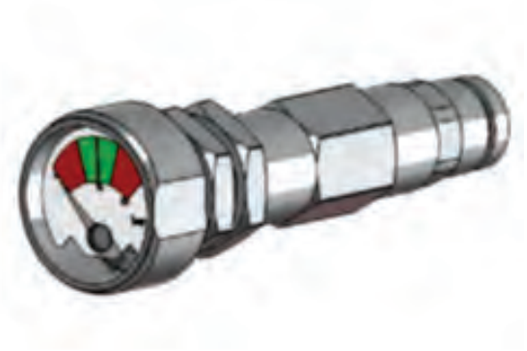
PGS 21.050 with double contacts applications:

- Pressure monitor for use in high pressure gas fire extinguishing systems.
- To display and monitor the container pressure and report container contents losses.
- General industry application - **Accuracy class 1.6**

Nominal size	:	50 mm
Ingress protection	:	IP65 according to EN60529 / IEC 529
Case	:	Stainless steel
Measuring element	:	Copper alloy
Motion work	:	Copper alloy
Dial	:	Aluminium white
Pointer	:	Black plastic
Viewing glass	:	Polycarbonate
Helium leakage test	:	Leakage rate 10 -5 mbar l / sec
Electrical data	:	Switching voltage: 4.5 V ... 24VDC/VAC (±30%)
Switching current	:	5 ... 100mA
Contact load	:	Max. 2.4 W potential-free
Compressive strength	:	Steady load: 3 / 4 x full scale value
Operating temperature	:	Ambient: -20 ... +60°C

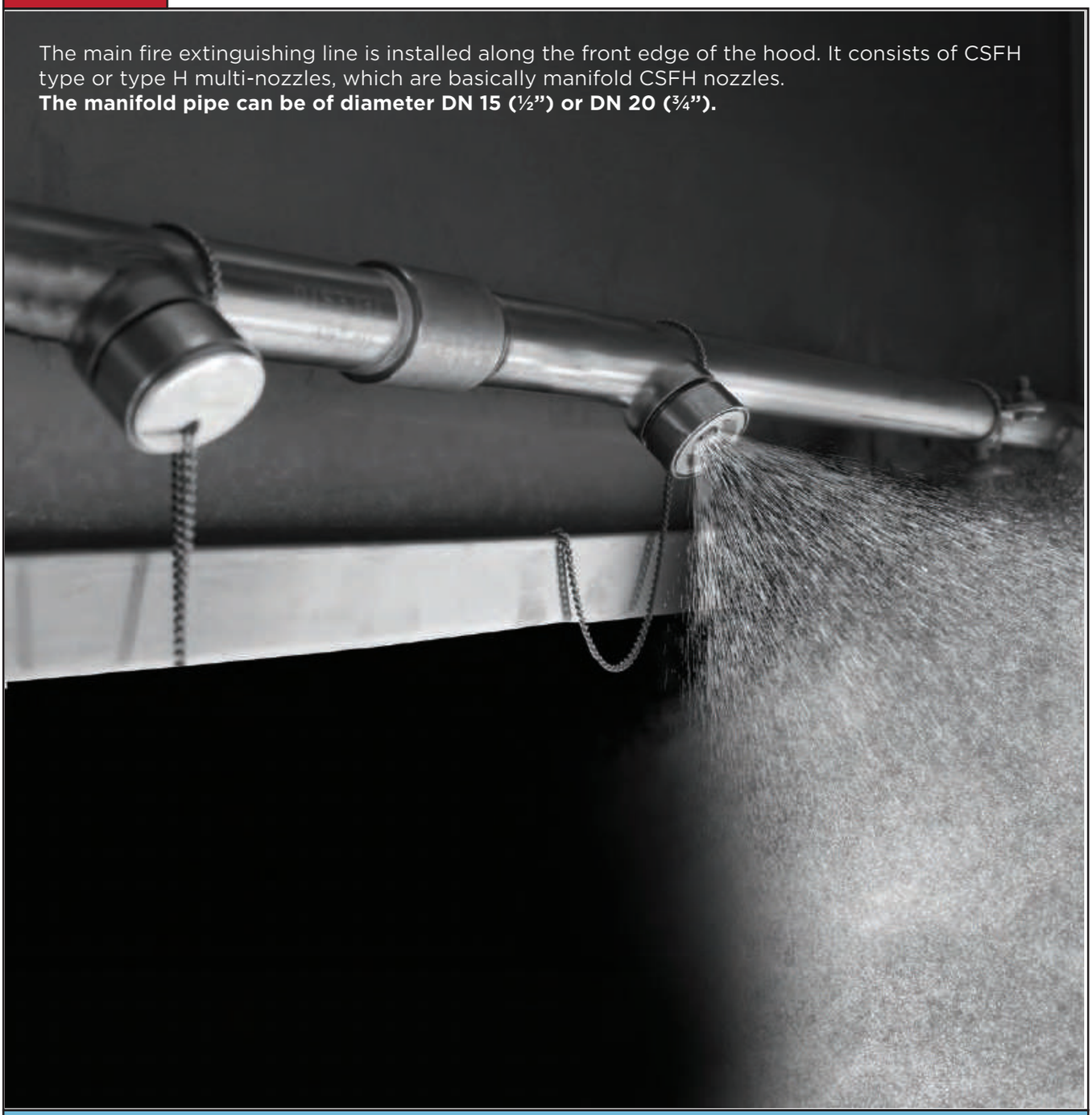
12. END OF LINE ADAPTOR





13. NOZZLES

The main fire extinguishing line is installed along the front edge of the hood. It consists of CSFH type or type H multi-nozzles, which are basically manifold CSFH nozzles.
The manifold pipe can be of diameter DN 15 (½") or DN 20 (¾").



1. **For hoods with 0.4 – 0.8 m distance from the worktop, CSFH 16 nozzles are used.**
2. **For hoods with 0.8 – 1.5 m distance from the worktop, CSFH 08 nozzles are used.**
3. **Nozzle manifolds of diameter DN15 (½") can be used only for kitchens up to 4 m long.**

For all lengths, especially those greater than 4 m, diameter DN20 (¾") multi-nozzles have to be used.

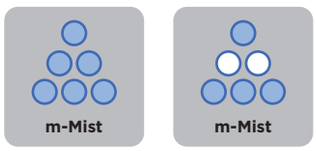
NCSFH 08 Nozzle Data Sheet

Full description: NCSFH 08.X.Y

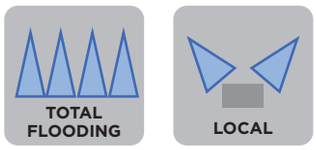
NCSFH - Net Filter Circle Single Fluid Head
08 - Model number
X - Kind of material:
1 stainless steel (316)
2 stainless steel (304)
3 brass (C37800)
4 brass (CuZn36Pb2As)

Y - 0 without cap
1 silicone protection cap
2 stainless steel

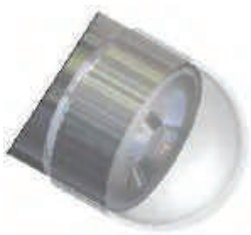
System Type:



Application:



NCSFH 08.1.0



NCSFH 08.1.1

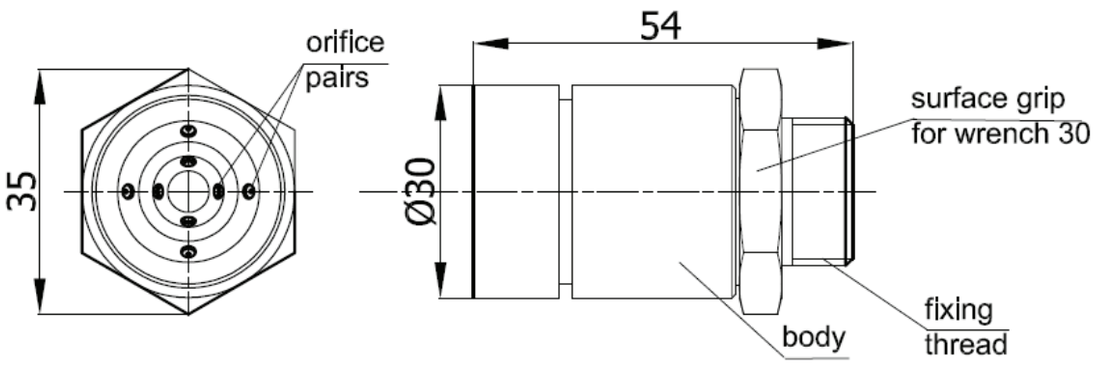
NCSFH 08.1.2

TECHNICAL PARAMETERS

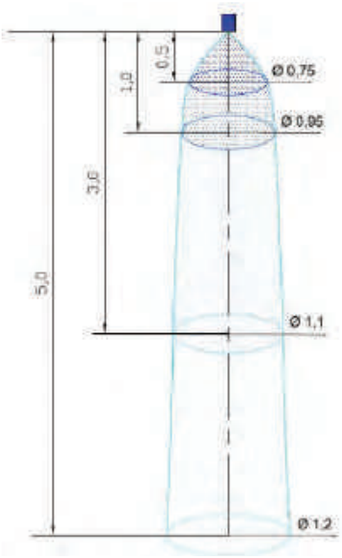
Basic extinguishing media	:	Water
Net filter opening	:	0.4 x 0.4 mm
Droplet size Dv	:	505 – 110 µm
Connection size	:	½" BSP ext.
Inlet pressure	:	6 - 16 bar
K factor	:	3.0
Number of orifice pairs	:	4
Head weight	:	0.2 kg
Protection cap	:	Silicon cap Cat. No. - N 116 SS cap Cat. No. - K 059

Design instructions are included in the design manual.Our products are being constantly developed and improved, therefore we reserve the right to change technical specifications without prior notice.

TECHNICAL DETAILS



MIST STREAM



MIST STREAM PARAMETERS

Working pressure [bar]	:	6	8	12	16
K flow factor	:		3.0		
Extinguishing agent expenditure [lit/min]	:	7.5	8.5	10.5	12.0
Effective stream range * [m]	:	1.6	1.8	2.1	2.4

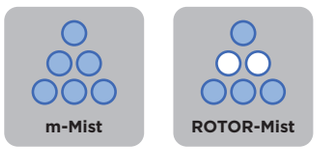
***Range of horizontal stream.**
Our products are being constantly developed and improved, therefore we reserve the right to change technical specifcations without prior notice.

NCSFH 10 Nozzle Data Sheet

Full description: NCSFH 10.X.Y
NCSFH - Net Filter Circle Single Fluid Head
10 - Model number
X - Kind of material:
1 stainless steel (316)
2 stainless steel (304)
3 brass (C37800)
4 brass (CuZn36Pb2As)

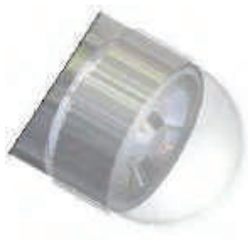
Y - 0 without cap
1 silicone protection cap
2 stainless steel protection cap

System Type:



Application:

NCSFH 10.2.0



NCSFH 10.1.1

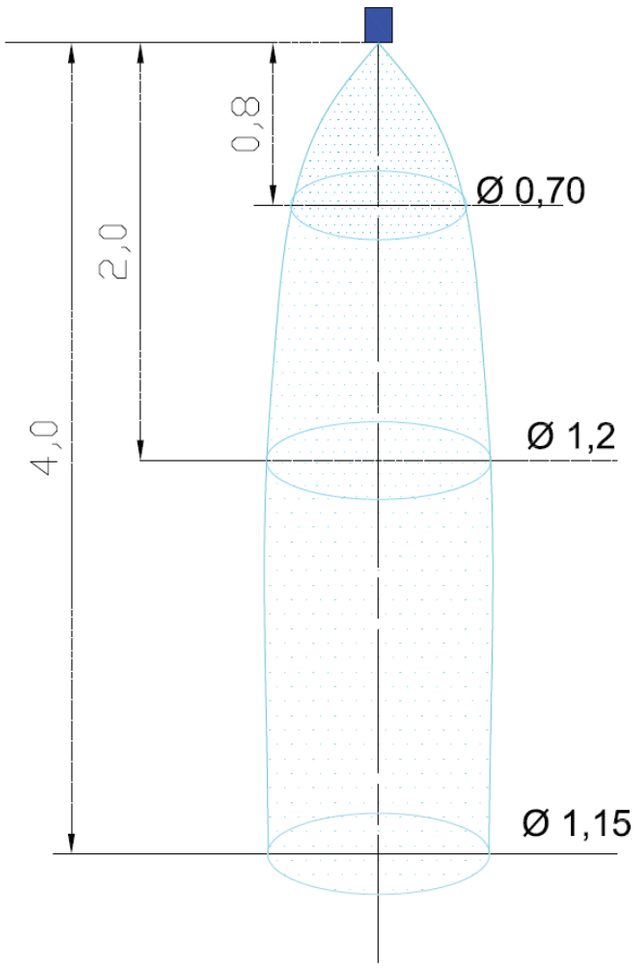
NCSFH 10.1.2

TECHNICAL PARAMETERS

Total flow surface	:	4.7 mm²
Basic extinguishing media	:	Water, gas and water (ROTOR)
Net filter opening	:	0.4 x 0.4 mm
Connection size	:	¼" BSP ext.
Inlet pressure	:	6 - 16 bar
Number of orifice pairs	:	4
Head weight	:	0.2 kg
Protection cap	:	Silicon cap Cat. No. - NA003 SS cap Cat. No. - NA001

Design instructions are included in design manual. Our products are being constantly developed and improved, therefore we reserve the right to change technical specifcations without prior notice.

TECHNICAL DETAILS



ROTOR MIST SYSTEM - MIST STREAM

ROTOR MIST SYSTEM - MIST STREAM PARAMETERS	
Initial pressure of work [bar]	: 15
Droplet size Dv [µm]	: 45 - 7t5
The minimum distance required to develop a stream of water mist [m]	: 0.4
Effective stream range*** [m]	: 2.3

***May vary ± 5%. | **Range of horizontal stream | ***Measurement in 30 second of action.**
Our products are being constantly developed and improved, therefore we reserve the right to change technical specifcations without prior notice.

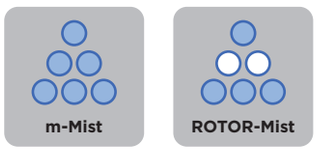
NCSFH 11 Nozzle Data Sheet

Full description: NCSFH 11.X.Y

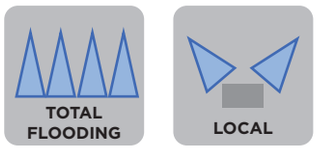
NCSFH - Net Filter Circle Single Fluid Head
11 - Model number
X - Kind of material:
1 stainless steel (316)
2 stainless steel (304)
3 brass (C37800)
4 brass (CuZn36Pb2As)

Y - 0 without cap
1 silicone protection cap
2 stainless steel protection cap

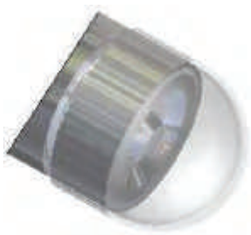
System Type:



Application:



NCSFH 11.1.0



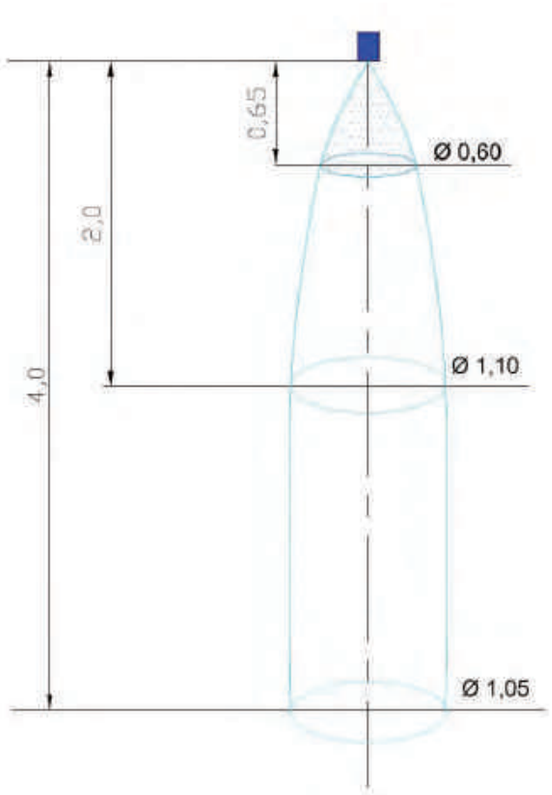
NCSFH 11.1.1

NCSFH 11.1.2

TECHNICAL PARAMETERS

Total flow surface	:	3.7 mm²
Basic extinguishing media	:	Water, gas and water (ROTOR)
Net filter opening	:	0.4 x 0.4 mm
Connection size	:	½" BSP ext.
Inlet pressure	:	6 - 16 bar
Number of orifice pairs	:	4
Head weight	:	0.2 kg
Protection cap	:	Silicon cap Cat. No. - NA003 SS cap Cat. No. - NA001

TECHNICAL DETAILS



ROTOR MIST SYSTEM - MIST STREAM

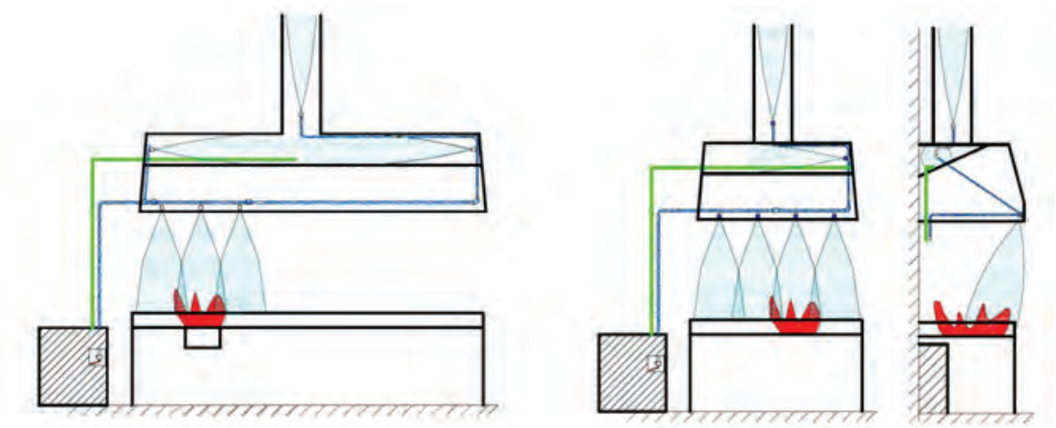
ROTOR MIST SYSTEM - MIST STREAM PARAMETERS	
Initial pressure of work [bar]	: 15
Droplet size Dv [µm]	: 40 - 70
The minimum distance required to develop a stream of water mist [m]	: 0.3
Effective stream range *** [m]	: 2.1

***May vary ± 5%. | **Range of horizontal stream | ***Measurement in 30 second of action.**
Our products are being constantly developed and improved, therefore we reserve the right to change technical specifcations without prior notice.

Operating Principle

In case of an automatic or manual actuation of the detection system, the supply unit begins to feed the medium into the fire extinguishing section. The rotors installed in cylinders produce a mixture of water and nitrogen, which flows in a rotor manner. It then flows out of the cylinder, through the manifold, into the main system pipe and further, via the pipeline, into the heads located under the hood. The nozzles generate a flow of mist, which covers the entire area.

The mist ejected from the nozzle forms a shape similar to a cone, whereas the joined streams create a mist curtain. The large area of dispersed Watermist enables fast and very efficient transfer of heat from the site being on fire. The collection of heat by the evaporating mist forms the basis of the system's fire extinguishing efficiency. The heads placed behind the filters and in the ventilation duct supply the extinguishing mist, which simultaneously cuts off the oxygen supply and cools the protected areas.



Advantages of the Watermist Kitchen Suppression System

- Elimination of post-fire losses caused due to flooding or usage of chemical extinguishing agents.
- Highly efficient at putting out fires.
- Fast distribution of mist due to high kinetic energy of the jet.
- Minimal water consumption.
- No risk of cracks in construction, housings and steel components.
- No thermal shock.
- Safe for people and property due to low pressure of water and gas.

The Watermist Kitchen Suppression System has been designed to protect any type of professional cooker used in restaurants, canteens, large catering areas, industrial kitchens, and on ships and yachts. Owing to the special ability of Watermist to fight Class A, B and F fires, the system can also be employed to protect small and large fryers, fried food stands and similar food processing equipment.

ENVIRO SERIES / PRE-ENGINEERED

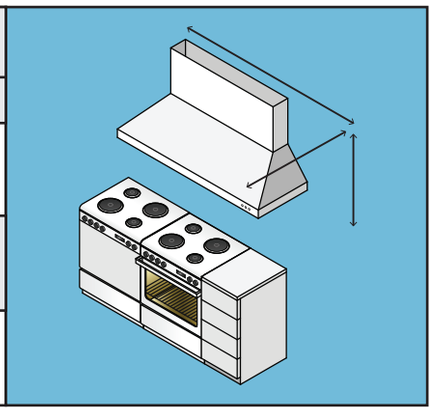
THE PRE-ENGINEERED RANGE OF KITCHEN SUPPRESSION SYSTEMS (WATERMIST)

Backed by in-depth studies of common applications of Kitchen Suppression Systems in the Indian market, Ceasefire's pre-engineered Watermist systems are designed to protect against fire in different hood sizes built around your kitchen. With zero collateral damage.

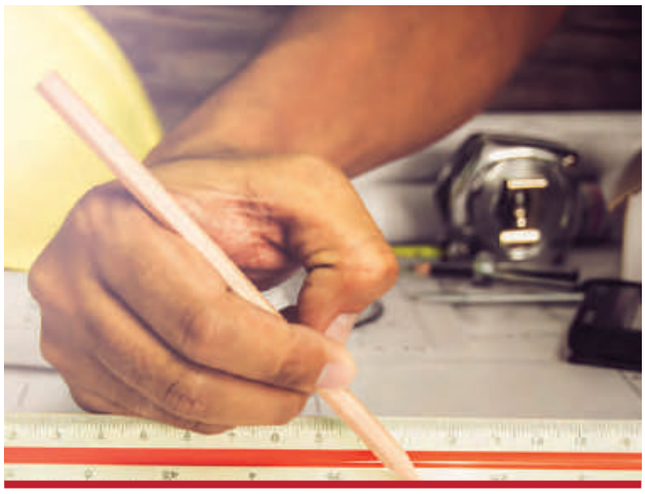
These pre-engineered systems cut the cost estimation and delays involved in customising a system to give you instant hassle-free protection.

The Watermist Kitchen Suppression System – M is available in 3 variants depending upon the length of your kitchen hood:

System Name	Kitchen Hood Length	
	Minimum	Maximum
CF - Enviro Kitchen Suppression System – M (Watermist) – V1	1.0 m	1.6 m
CF - Enviro Kitchen Suppression System – M (Watermist) – V2	1.61 m	2.4 m
CF - Enviro Kitchen Suppression System – M (Watermist) – V3	2.41 m	3.2 m



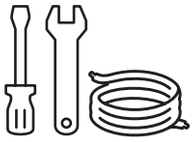
Installing Modular Systems



First, our Safety Consultants will visit your premises and help you calculate the length of the kitchen hood you wish to protect.

Depending on the dimensions, a corresponding variant of the modular system will be selected.

Finally, the Installation Team oversees installation and testing.

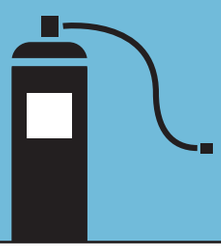


Post installation, Ceasefire's Specialised Services Division maintains and services the system.

The big advantage here is that the variant you choose will have a fixed price. Any further costs involved in customising the system or adding components will be taken care of by us, giving you complete peace of mind.

ENVIRO SERIES

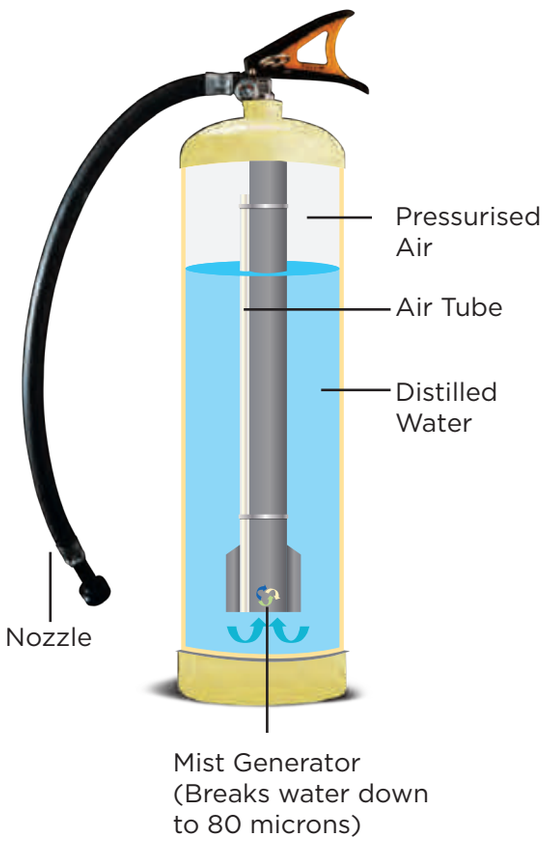
WATERMIST-BASED PORTABLE EXTINGUISHERS (CHPS)



A system specifically designed to put out fires involving oil. Triggered by smoke, the first sign of a fire, and a corresponding rise in temperature, this powerful, automated firefighting system is fully equipped to douse the flames, before they spiral out of control.

The portable CHPS is powered by Watermist. Once the system is triggered, a specially designed rotary within the mist generator mixes air and water in a pre-set proportion to generate Watermist. The mist is then propelled at the fire through the specially designed nozzle, and has a throw of 10 feet. The mist then quickly blankets the flames and brings down the temperature to below combustion levels.

The CHPS is perfect for every stage of the food chain: production, storage, transportation and distribution.



FEATURES

	Stainless Steel Body - No corrosion; and can handle high temperatures.
	Safety Seal – The CHPS sports a tamper-proof safety seal.
A B F	Can be used on Class F Fires – Fights Class A, B and F (oil) fires.
	No Collateral Damage – The CHPS uses distilled water and converts it into a fine mist, ensuring no further damage.
	3 Variants – Available in three variants – 2 liters, 3 liters and 6 liters.

Besides, being 100% green, Watermist causes no damage to equipment or the Earth. Making it absolutely safe for kitchens, sensitive equipment and, above all else, human lives.

CEASE FIRE

WORLD SERIES

WET CHEMICAL KITCHEN FIREFIGHTING RANGE

WET CHEMICAL KITCHEN FIREFIGHTING RANGE

ULTRA SERIES / ENGINEERED

THE WET CHEMICAL KITCHEN SUPPRESSION SYSTEM

CERTIFIED BY LPCB FOR LPS 1223 STANDARD

Hazardous oil and grease fires in kitchens take place due to overheating of oil in the temperature range of 350˚C - 380˚C. Fires are further enhanced by the accumulation of oil deposits in the enclosure behind the filter and the exhaust ducts of the kitchen hood over time due to cooking activities.

Several reasons can be attributed to kitchen fires, from temporary distraction by the user to complete absence of attention to cooking appliances and vessels during cooking to malfunctioning of automated temperature control equipment in electrical deep fat fryers.

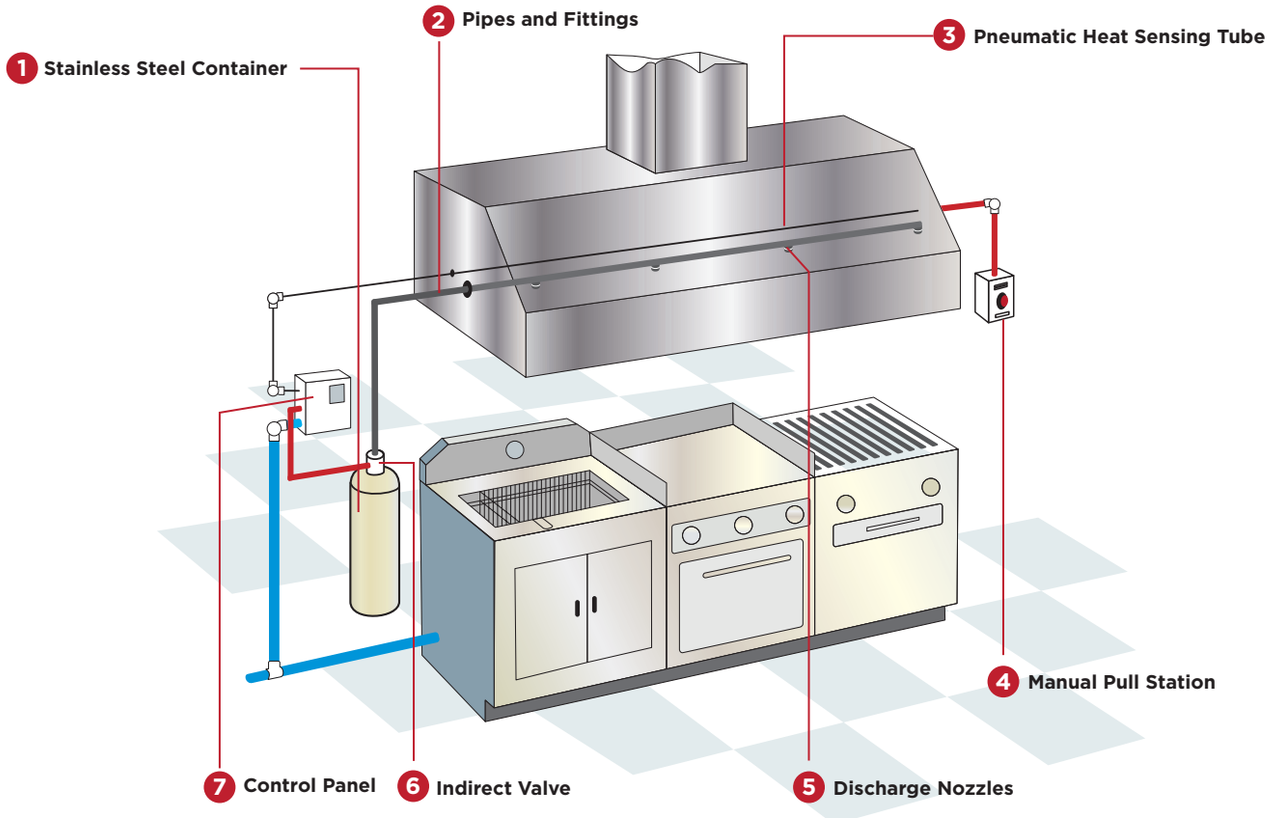
This is where the Ceasefire Wet Chemical Kitchen Suppression System comes in. This automated kitchen fire suppression system detects and kills a fire, even when no one is around.

How The System Protects

The Wet Chemical Kitchen Suppression System incorporates both manual and automatic protection by a pneumatic detection and actuation technique.

All sensitive areas susceptible to fire such as fire due to overheated cooking oil in vessels/deep fat fryer and oil residual deposits in the extraction system of kitchen hoods are covered by a pressurised heat sensing tube. The heat sensing tube is connected to the head of the indirect low pressure valve mounted on the top of pressurised agent container.

In case of fire, the heat sensing tube punctures at a pre-determined temperature, releasing the pressure of the tube and activating the indirect valve. The extinguishing agent thus released is spread through distribution piping from the nozzle provided to cover the kitchen hood, vessels, plenum and duct.



How The Agent Works

The extinguishing chemical is a foaming agent that is ideal to fight Class A, B and F fires. It is also environmentally friendly as it's more than 99% biodegradable (up to 72% within three days).
The wet chemical extinguishing agent has a blanketing effect on the flames, which cools the oil to below its self-ignition point.
In contrast to normal Class B fires where temperatures in the range of 350˚C-380˚C are observed only in the burned fuel or their vapour, the oil used in cooking is itself at this high temperature.
Being a de-greasing substance, the extinguishing agent ensures that the kitchen can be cleaned easily post a fire.

CEASEFIRE'S WET CHEMICAL KITCHEN SUPPRESSION SYSTEM GIVES YOU MORE:

- LPCB Certified System
- No flooding-related collateral damage
- Fights Class A, C and F (oil) fires
- Uses biodegradable foam, which also acts as a cleaning agent
- Its heat-sensitive tube offers superior uniform protection as compared to conventional Point Detector-based Systems
- Available in 11.5 liters, 15.6 liters and 25 liters

Features of the Wet Chemical Kitchen Suppression System

	24-hour Protection - Automatic detection and actuation controls ensure fire protection is always 'up'.
A,B,C,D,F,	**Stored Pressure Technology** - Stainless steel containers hold the wet chemical under stored pressure. This not only ensures instant activation, but also provides the convenience of checking the readiness of the system by the mere observation of the pressure gauge. If the needle is in the green zone, the system is ready for action
	Multiple Triggers - The system can be triggered either by the manual actuation system or the automatic detection system.
	Highly Effective - Wet Chemical prevents re-ignition by cooling down the temperature of the heated oil.
	Unobtrusive Design - Flexible piping configurations allow for a streamlined design and convenient installation that won't interfere with kitchen workflow.

	Highly Flexible - Ceasefire's Kitchen Suppression System's flexible configuration and design can easily accommodate changes to the layout of appliances or the expansion of the cooking area.
	Highly Reliable - A fully assembled and 100% tested Mechanical Control Head ensures reliable operation. Pressure gauges on the steel cylinders mark the gas levels, allowing maintenance staff to replenish it whenever required. Protective chrome nozzle covers keep the nozzles free of contamination and blockages caused by grease or other cooking by-products.
LPCB	**LPCB Certified System**
	3 Variants - Available in three variants – 11.5 liters, 15.6 liters and 25 liters.

Wet Chemical Kitchen Suppression System Components

1. AGENT CONTAINER

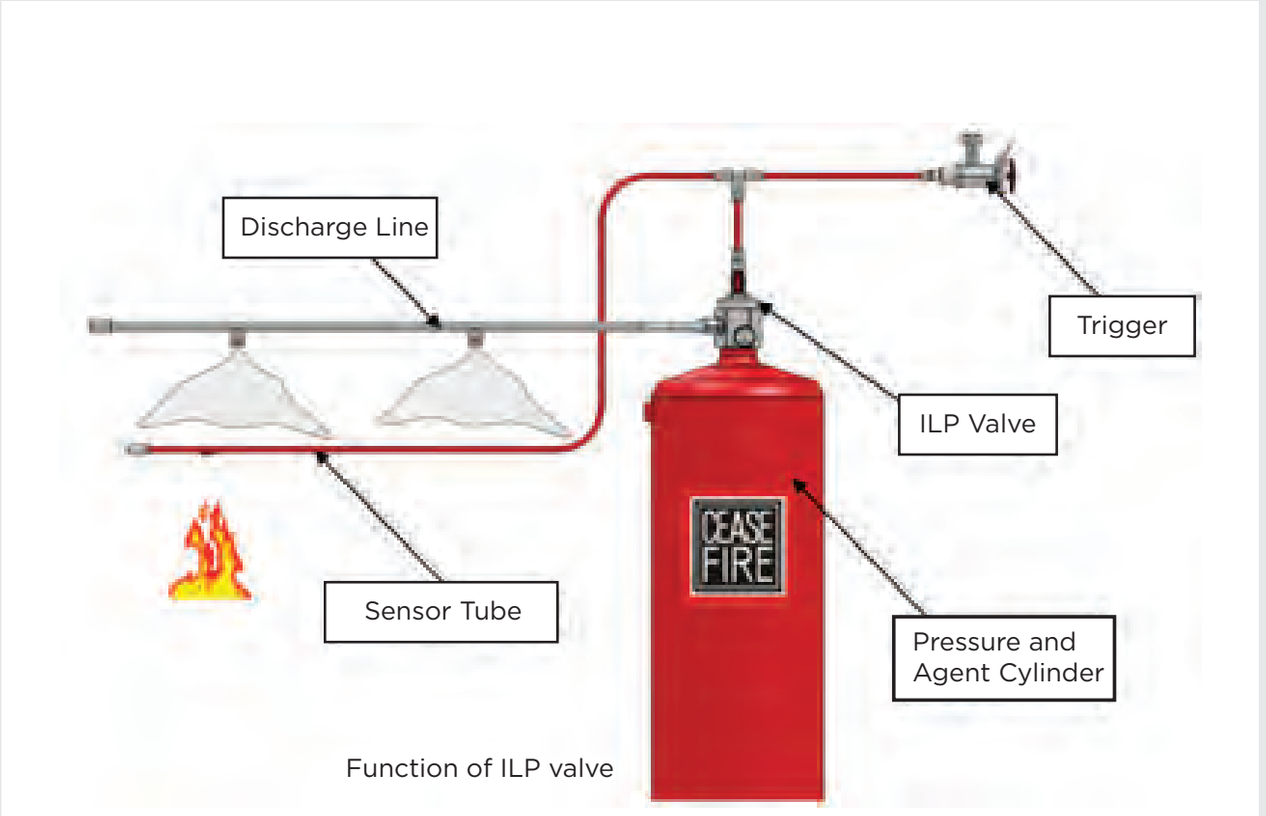
The size and content of the stainless steel cylindrical agent containers depend upon the number of nozzles selected. Agent containers are available in three sizes:

11.5 liters capacity | 15.6 liters capacity | 25 liters capacity

The agent volume has been selected by the number of nozzles estimated to 2 liters per nozzle discharge.

2. CYLINDER VALVE

This ILP valve is the main component of an indirectly working extinguishing system in connection to the Ceasefire heat sensing tube. If the sensor detects a fire, the valve is triggered and expels the extinguishing agent from the pressure vessel through a separate discharge line. The valve reacts to a drop in pressure inside the heat sensing tube and opens the valve outlet. Because of the indirect function principle, the system may also be triggered and activated manually or electromagnetically.



Function of ILP valve

3. EXTINGUISHING AGENT

Developed after extensive research by Ceasefire, the extinguishing agent has a significant influence not only on the extinguishing result (especially in the case of grease fires) but also on factors such as the corrosive behaviour and performance.

It is biodegradable to more than

99% and is therefore not classified as hazardous waste.

In addition, after having been expelled, the agent's residue can be used as a cleaning agent, because it has excellent cleaning and degreasing properties.

The water-concentrate ratio is 10:1 (10% agent concentration).

It combines the perfect extinguishing properties of a foam agent with an optimized biological tolerance.

4. CEASEFIRE HEAT SENSING TUBE

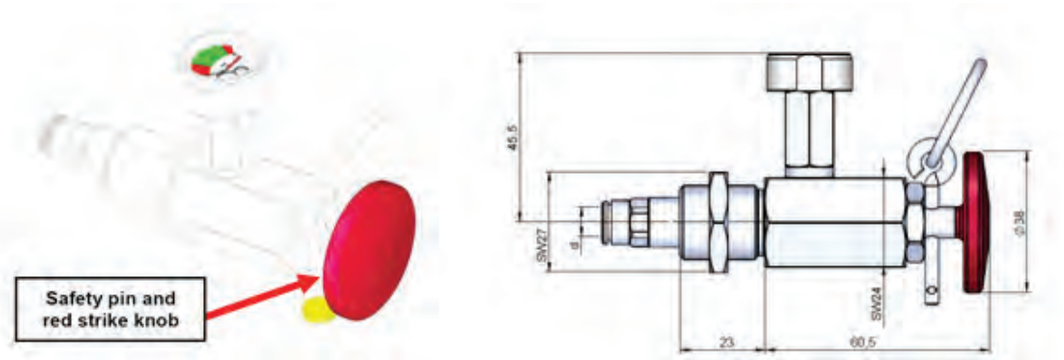
In the Wet Chemical Kitchen Suppression System, the standard fire detection device is the Ceasefire heat sensing tube. Ceasefire's heat sensing tubes are made of high-tech plastic and were developed especially for the installation and application in automatic fire extinguishing systems.

The prescribed operating pressure is applied to the heat sensing tube after the proper installation. Due to the thermal material properties and the inner over-pressure, the heat sensing tube will burst when touched by a flame or subjected to an excessive heat increase, and therefore functions as a reliable detector in the case of a fire.

5. MANUAL ACTUATOR

Manual triggers are installed in or at the end of the detection line and simulate a burst of the heat sensing tube when actuated. The drop of pressure thus generated will trigger the valve.

To actuate the manual trigger, pull the safety pin and press the red strike knob.

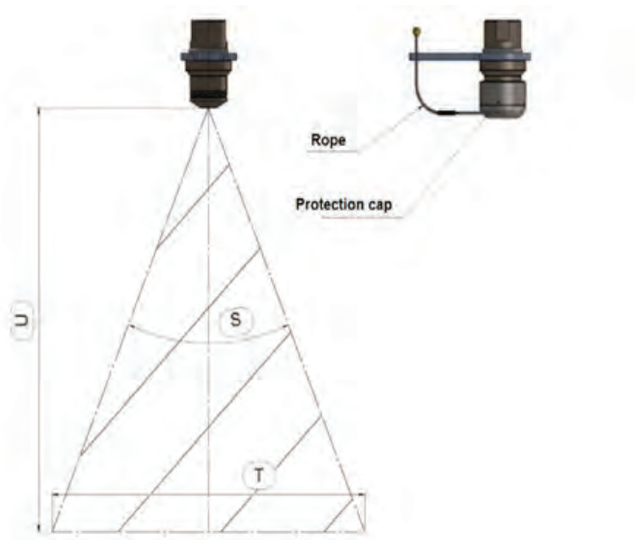


The installation of a manual trigger is mandatory.

6. EXTINGUISHING NOZZLES

The number of nozzles needed for a system depends on the circumstances and the type of equipment in the kitchen.

Full cone nozzle 40° | **Full cone nozzle 15°**



The nozzles are protected against the intrusion of dirt and grease by protection caps. However, the nozzles must be kept absolutely clear of dirt and obstructions during installation. When the system is activated, the protection caps are blown off and do not impede the disbursal of the extinguishing agent.

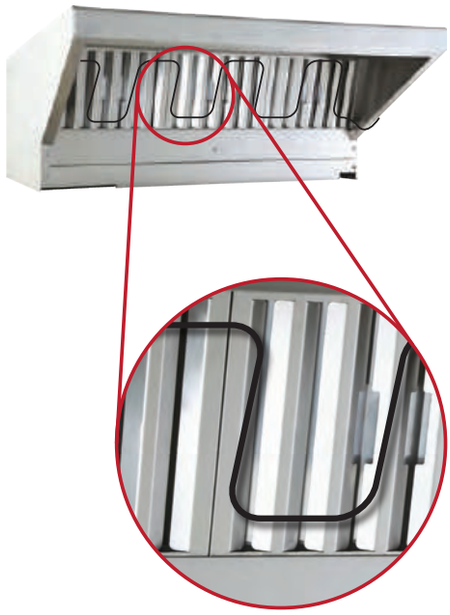
The nozzles must be selected according to the local circumstances (hood length) and aligned accordingly.

7. PIPES, FITTINGS

Stainless steel pipe of **10 mm diameter** (inner diameter of 8 mm) with compression fittings are used.

8. AUTOMATIC FIRE DETECTION

Each Ceasefire kitchen fire extinguishing system is fitted with a pneumatic heat sensing tube as a fire detector. In the event of a fire, the tube will react to the increasing heat and burst. The resulting pressure drop activates the cylinder valve **(ILP)** and the extinguishing agent is expelled through the extinguishing line.



9. MANUAL SYSTEM ACTUATION

In case the kitchen personnel or someone else detects a fire before the sensor hose has reacted, he or she can trigger the activation manually. There are two manual actuation options available. The silver safety pin must be pulled, and the red strike knob must be pushed deeply and firmly. These triggers are mounted at the end or in line with the sensor hose.

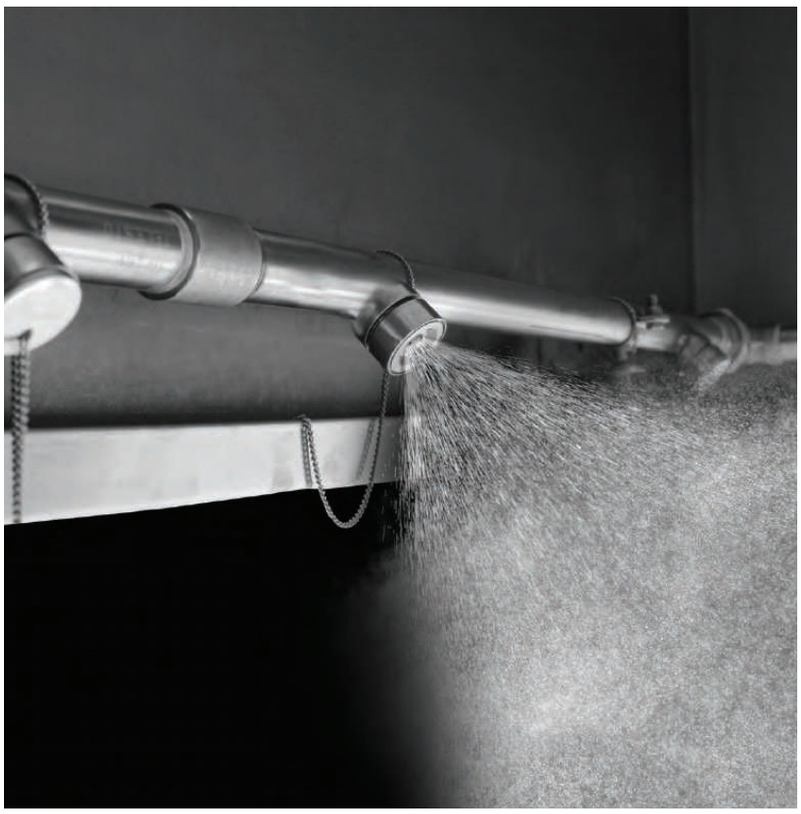
10. OPTIONAL CONTROL PANEL

The Control Panel not only helps monitor the readiness of your kitchen suppression system, which ensures that you're not left high and dry in an emergency situation, but also raises the alarm.

- **Activates alarm**
- **Compatible with third party systems**
- **Helps check the readiness of your kitchen suppression system**

ULTRA SERIES / PRE-ENGINEERED

THE PRE-ENGINEERED RANGE OF KITCHEN SUPPRESSION SYSTEMS (WET CHEMICAL)



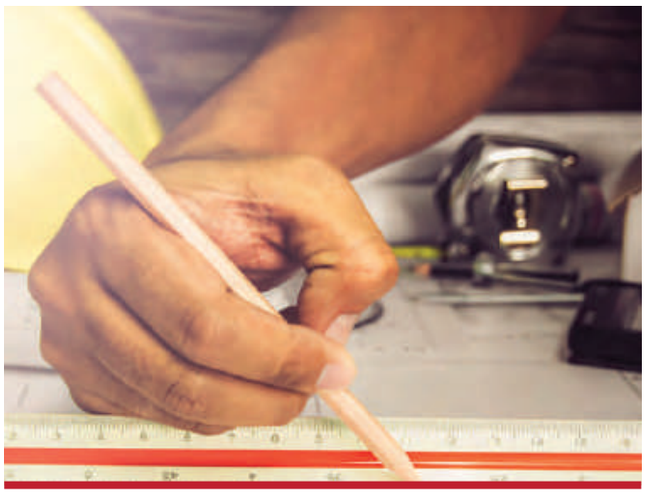
This pre-engineered system is built around your kitchen hood sizes. This Kitchen Suppression System is powered by Wet Chemicals and is built to protect you against the largest of kitchen fires. Causing no flooding-related collateral damage in the bargain.

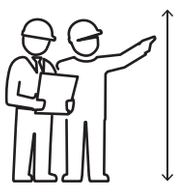
These pre-engineered systems cut the cost estimation and delays involved in customising a system to give you instant hassle-free protection.

The Wet Chemical Kitchen Suppression System – M is available in 6 variants, depending upon the length of your kitchen hood.

System Name	Kitchen Hood Length	
	Minimum	Maximum
CF - Ultra Kitchen Suppression System – M (Wet Chemical) – V1	Up to 1.6 m long	
CF - Ultra Kitchen Suppression System – M (Wet Chemical) – V2	1.61 m	2.4 m
CF - Ultra Kitchen Suppression System – M (Wet Chemical) – V3	2.41 m	3.2 m
CF - Ultra Kitchen Suppression System – M (Wet Chemical) – V4	3.21 m	4.0 m
CF - Ultra Kitchen Suppression System – M (Wet Chemical) – V5	4.01 m	4.8 m
CF - Ultra Kitchen Suppression System – M (Wet Chemical) – V6	4.81 m	5.6 m

Installing Modular Systems

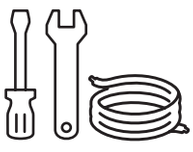




First, our Safety Consultants will visit your premises and help you calculate the length of the kitchen hood you wish to protect.

Depending on the dimensions, a corresponding variant of the modular system will be selected.

Finally, the Installation Team oversees installation and testing.



Post installation, Ceasefire's Specialised Services Division maintains and services the system.

The big advantage here is that the variant you choose will have a fixed price. Any further costs involved in customising the system or adding components will be taken care of by us, giving you complete peace of mind.

ULTRA SERIES / ENGINEERED

Wet Chemical-Based Portable Extinguishers

Ceasefire's wet chemical-based fire extinguishers are specially designed to fight oil fires in kitchens. When set against a fire, the specialised foam extinguishing agent in these extinguishers smothers the fire by cutting off the oxygen supply and bringing the surrounding temperature to below combustion levels within seconds. Being a de-greasing substance, the extinguishing agent ensures that the kitchen can be cleaned easily post a fire. Besides, the wet chemical foam is over 99% biodegradable, making these extinguishers safe for the environment.

FEATURES

	Stainless Steel Body - No corrosion; and can handle high temperatures.
	Safety Seal – Sports a tamper-proof safety seal.
A B F	Can be used on Class F Fires – Fights Class A, C and F (oil) fires.
	Prevents re-ignition – The Wet Chemical-based extinguisher is highly effective as it prevents re-ignition.
	Controllable discharge mechanism – A simple squeeze grip activation mechanism allows you to control the discharge of the extinguishing agent.
	Three variants – Available in three variants – 2 liters, 3 liters and 6 liters.

CEASE FIRE

WORLD SERIES

TECHNICAL SPECIFICATIONS


CEASE
FIRE

ENVIRO SERIES

THE WATERMIST KITCHEN SUPPRESSION SYSTEM

DIMENSION / SIZE / VOLUME / TYPE / PRESSURE			
Agent container volumes	10.0 L	25.0 L	50.0 L
Maximum agent content for agent container (Demineralised Water)	7.2 L	18 L	36 L
Internal diameter of dip tube		OD 25.4 mm	
Internal diameter of dip tube		ID 22.4 mm	
Cylinder connection for dip tube fitting		OD 26.4 mm	
Filter for dip tube (strainer)		200 mm	
Length for agent container	525.5 mm	516.5 mm	732.5 mm
Internal Diameter for agent container	175 mm	300mm	350 mm
Operating temperature range	5° to 65° C		
Pressure gauge for agent container pressure	Maintained at 15 bar relaxation of +/- 0.25 bars		
Operating pressure	OPTIMUM 15 bar		
Agent propellant / Agent container pressurising	Nitrogen (N^2)		
Agent container material	Stainless Steel Powder Coated		
Agent container sheet thickness	2 mm	2 mm	2.5 mm
Agent container head	M30x1.5	3" BSP	3" BSP

VALVE	
Construction	S.S 304
Indirect low pressure valve with two outlets	Differential head pressure operation
Valve outlet thread	G1/2" (2x)
Vessel connection thread	M30 x 1.5 mm
Heat sensing tube connector to ILP	OD. 6 mm
Pressure gauge	Connection thread M10 x 1
Height	143 mm

HEAT SENSING TUBE	
Construction	Modified, Two Layer Poly Amide
Dimensions	Od-6 mm ; Id-4 mm
Permeability	10.4 Mbar L/sec (Helium)
Bending Radius	Min 100 mm

PIPES AND FITTINGS	
Construction	SS 304
Dimensions	Dn 10 ; Dn 15; Dn 20

NOZZLES	CSFH 08	CSFH 10	CSFH 11	CSFH 16
Construction	S.S. 304			
Maximum Horizontal Range at 6 Bar	1200 mm	1400 mm	1600mm	1300 mm
Maximum Spray Diameter at 5m	1200 mm	1200 mm	950 mm	1650 mm
Spray Distance	5 m			
Spray Form	Approximately Cone			
Flow Rate at 6 Bar	7.5 L/min	5.4 L/min	4.4 L/min	7.1 L/min
Protection	Steel cap with chain			

ULTRA SERIES

WET CHEMICAL KITCHEN SUPPRESSION SYSTEM

DIMENSION / SIZE / VOLUME / TYPE / PRESSURE			
Agent container volumes	11.5 L	15.6 L	25 L
Max agent content for agent container	8 L	12 L	20 L
Internal diameter of dip tube	Min 8 mm		
End connection of valve for dip tube fitting		M16 x 1.5	
Filter for dip tube (strainer)	Mesh size <1 mm		
Length for agent container	537.5 mm	331 mm	456 mm
Internal diameter for agent container	175 mm	300 mm	300 mm
Operating temperature range	0° to 65°C		
Pressure gauge for agent container pressure	Maintained at 20 bar relaxation of +/- 0.25 bars		
Operating pressure	Min 17.9 bar -23.7 bar Max		
Agent propellant / Agent container pressurising	Nitrogen (N^2)		
Agent container material	Stainless Steel Powder Coated		
Agent container sheet thickness	1.5 mm	2 mm	2 mm
Agent container head	M30x1.5		

VALVE	
Construction	S.S. / Brass
Indirect low pressure valve with two outlets and Integrated ball valve (ILP)	Differential head pressure operation
Valve outlet thread	G1/4" (2x)
Vessel connection thread	M30 x 1.5 mm
Dip tube thread	M16 x 1.5 mm
Heat sensing tube connector to ILP	OD. 6 mm
Pressure gauge	Connection thread M10 x 1
Electronic monitoring of lever position	Optional
Height	120 mm (Inclusive of 16 mm thread)

NOZZLES	F0060014	F0060015
Construction	S.S. / Brass	
Spray Angle	40 Degree	15 Degree
Spray Cone Diameter	1100 mm	500 mm
Spray Distance	1350	1000
Spray Form	Full Cone	
Flow Rate	Approx 3L/min	
Protection	Steel Cap With Rope	

PIPES AND FITTINGS	
Construction	SS 304
Dimensions	Od-10 mm; Id-8 mm
Connection Hose	Rubber Hose Work Pressure 40 Bars

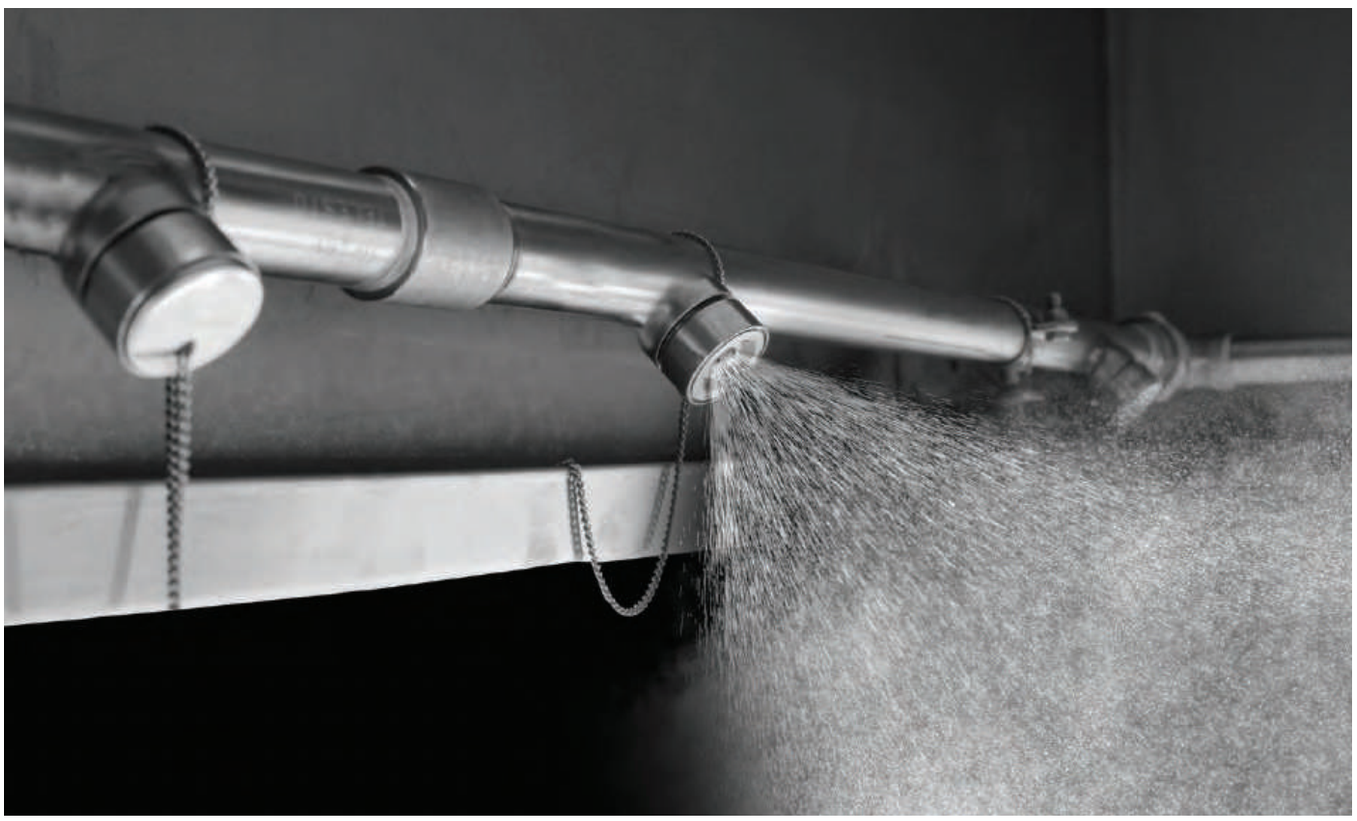
HEAT SENSING TUBE	
Construction	Modified, Two Layer Poly Amide
Dimensions	Od-6 mm ; Id-4 mm
Bending Radius	Min 100 mm

EXTINGUISHING AGENT	
Physical State	Liquid
Colour	Brownish
Odor	Typical
Boiling Point	> 100 Degree Centigrade
Ignition Point	> 100 Degree Centigrade
Density At 20 Degree Centigrade	1.02 G/milliliter
Water Solubility	Unlimited in water
Ph-value (G/liter water °C):	Approximately 7.5
Concentration Mix In Water	10 Percent

ENVIRO SERIES

WATERMIST-BASED PORTABLE EXTINGUISHERS (CHPS)

Size	2 Ltr.	3 Ltr.	6 Ltr.
Gross Weight	4.6 Kg	6.23 Kg	10.4 Kg
Empty Weight	2.6 Kg	3.23 Kg	4.4 Kg
Can Height	440 mm	480 mm	615 mm
Diameter	140 mm	160 mm	175 mm
Discharge Time	Min 8 secs	Min 13 Secs	Min 13 Secs
Discharge Mechanism	Controllable	Controllable	Controllable
Range	Min 2 Meters	Min 2 Meters	Min 2 Meters
Applicable on	Class A, B, F & ESF	Class A, B, F & ESF	Class A, B, F & ESF
Rating	5A, 25F	8A, 25F	13A, 75F
Can Construction	Deep drawn & CO_2 Mig welded	Deep drawn & CO_2 Mig welded	Deep drawn & CO_2 Mig welded
Valve Construction	Forging & Machining	Forging & Machining	Forging & Machining
Tests	Helium Leak Detection	Helium Leak Detection	Helium Leak Detection
Sheet Metal Thickness	1.50 mm	1.50 mm	1.50 mm
Approval	EN3-7&8	EN3-7&8	EN3-7&8
Warranty	1 Year	1 Year	1 Year



ULTRA SERIES

WET CHEMICAL-BASED PORTABLE EXTINGUISHERS

Size	3 Ltr.	6 Ltr.	9 Ltr.
Gross Weight (kg)	6.95	11.75	16.9
Empty Weight (kg)	3.02	3.9	5.05
Cartridge Capacity	NA	NA	NA
Can Height (mm)	430	515	610
Diameter (mm)	140	160	175
Minimum Discharge Time (s)	12	15	15
Discharge Mechanism	Controllable	Controllable	Controllable
Minimum Range (m)	2	2	2
Ratings	8A 40F	13A 75F	21A 75F
Sheet Metal Thickness (mm)	1.5	1.5	1.5
Testing Helium Leak Detection	Yes	Yes	Yes
Certification Standard	EN3-7&8	EN3-7&8	EN3-7&8
Warranty (years)	1	1	1
PED 97/23/ce			
MED	Applied For	Applied For	Applied For
LPCB	EN3-7&8	-	-

Optional Control Panel

This 4 Channel Quick Response System Controller integrates 4 cylinder monitoring and control functions. This system comes with a front display and keypad option which allows programming and viewing options at the panel.

OPERATING FEATURES

The Control Panel not only helps monitor the readiness of your kitchen suppression system, which ensures that you're not left high and dry in an emergency situation, but also raises the alarm.

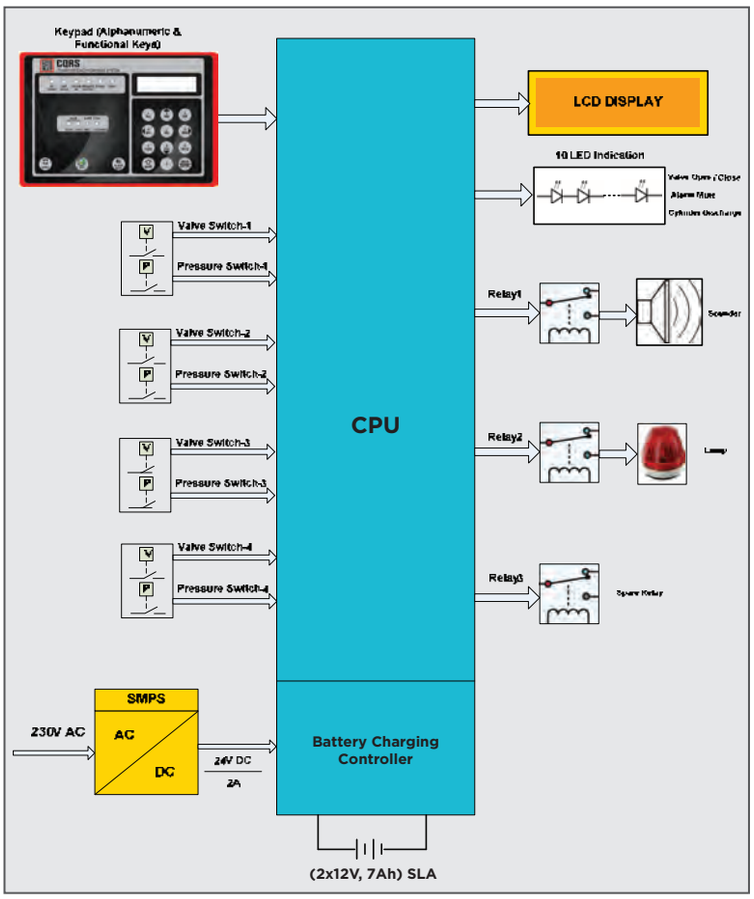
- 4 Cylinders' Valve and Pressure Switch Status Monitoring.
- Wide Operating Voltage SMPS with 150-300V Range.
- User-friendly Interface with LCD Display.
- Programmable sense delay timing for sounder and relay activation maximum up to 5 sec.
- Relay outputs for Hooter and Lamp indication on detection of fire.

KEY FUNCTIONS

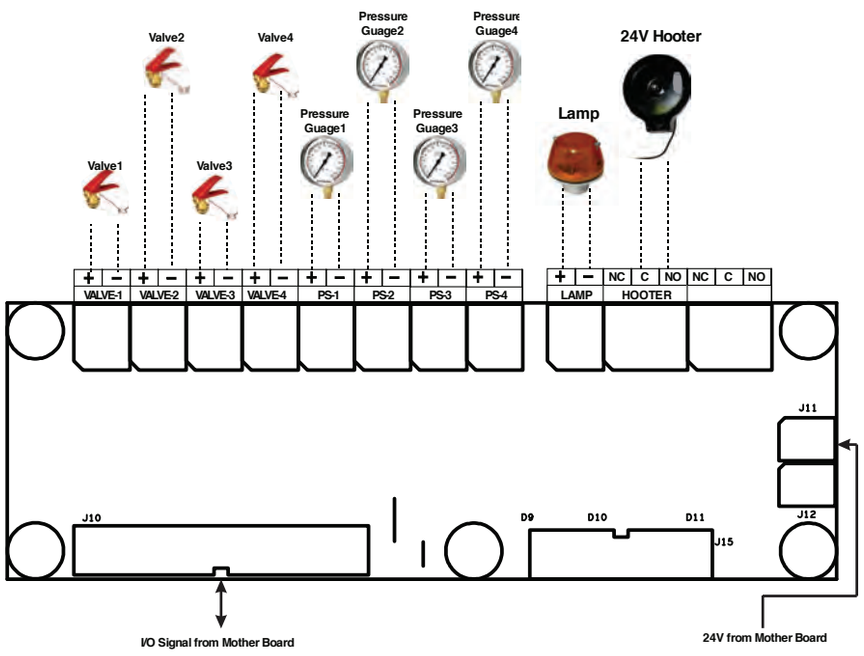
RESET	**RESET :** The **reset** key resets faulty conditions. The cylinder valve open/close conditions reset. The pressure switch open does not have an auto reset, it resets by pressing the reset key.
TEST	**TEST :** Pressing this key ensures diagnosis of the system.
ALARM MUTE	**ALARM MUTE :** Whenever a fault or fire occurs, the alarm relay turns **ON.** Silencing the alarm/hooter can be done by pressing this key.
MENU / ENTER	**MENU/ ENTER :** User/operator can enter into the setup menu by pressing this key.
1 Ecs	**ESC:** To exit to the main screen, press **ESC** key.
SHIFT	**SHIFT :** Shift + left/right arrow key pressed together enables the shifting of the cursor respectively, so as to edit parameter values.

8 TUV	**DOWN ARROW:** The setup menu display can be scrolled up by pressing this key. Also switching on the unit by pressing this key continuously for 10 seconds resets the password to default factory settings.
2 ABC	**UP ARROW:** The setup menu display can be scrolled up by pressing this key. Also, the state of AC supply and battery will be displayed on the screen.
6 MNO	**RIGHT ARROW:** To scroll the cursor to the **right** along with the shift key.
4 GHI	**LEFT ARROW:** To scroll the cursor to the **left** along with the shift key.

SYSTEM BLOCK DIAGRAM



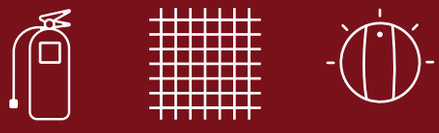
WIRING DIAGRAM

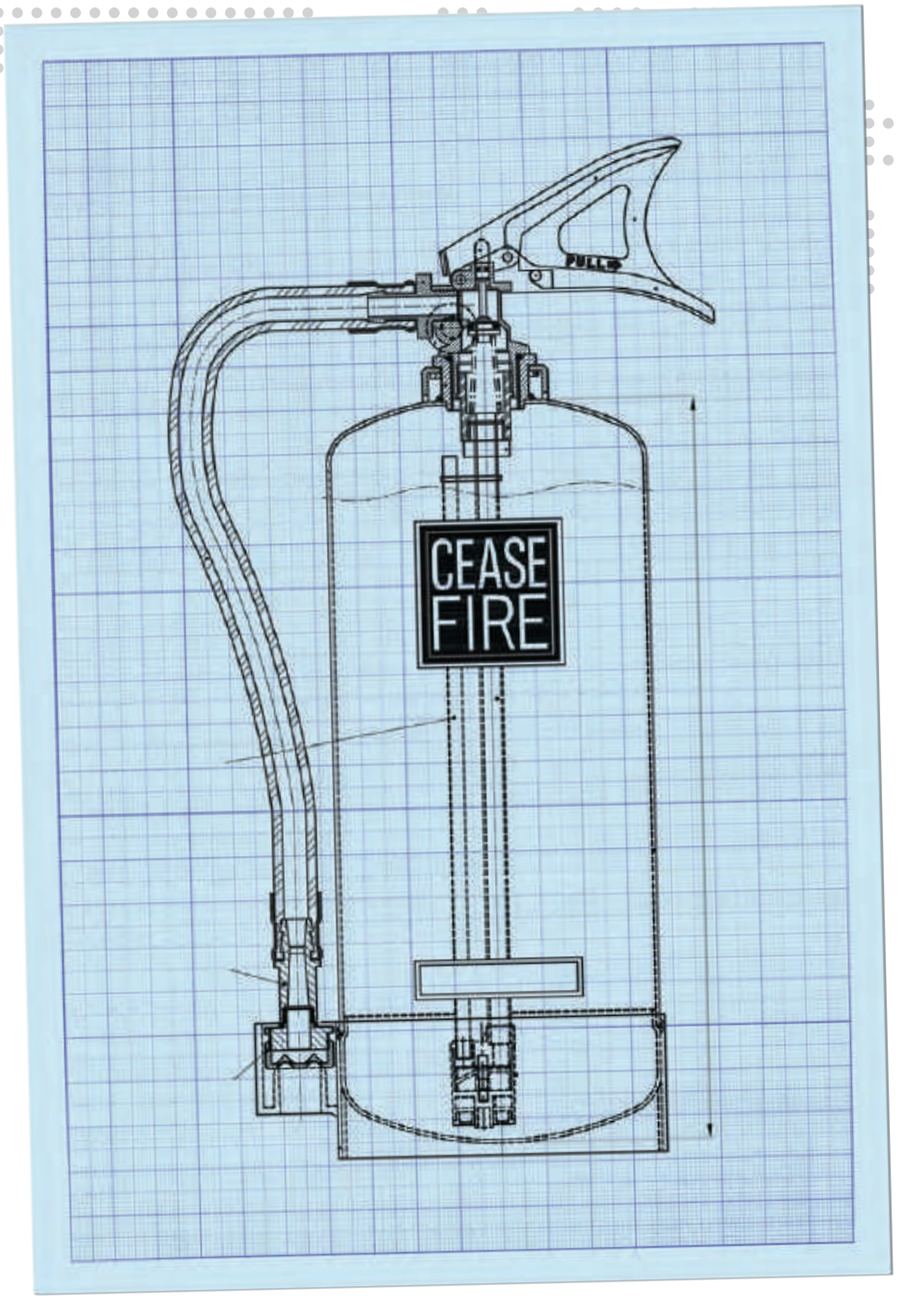


CEASE FIRE

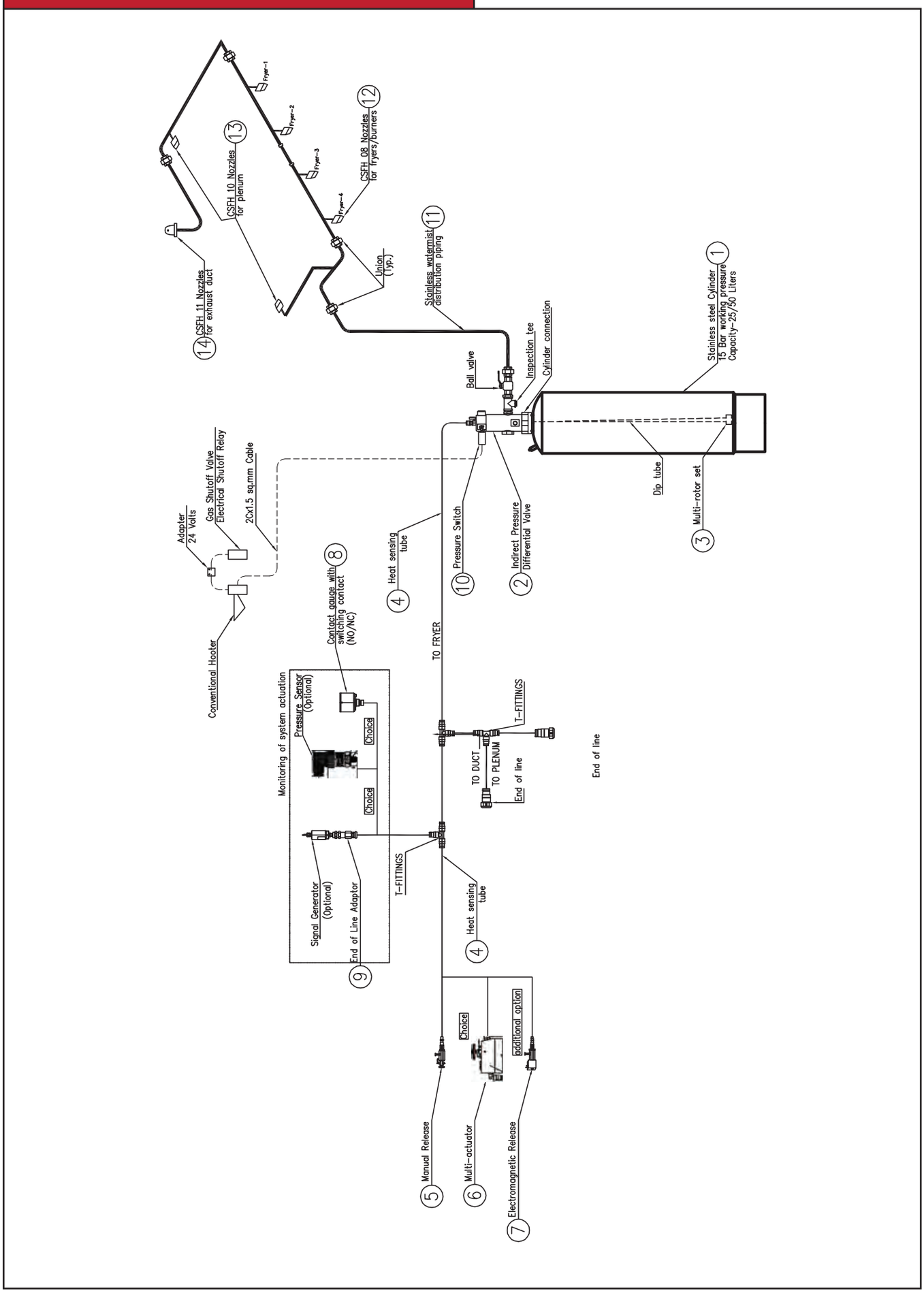
WORLD SERIES

TECHNICAL DIAGRAMS

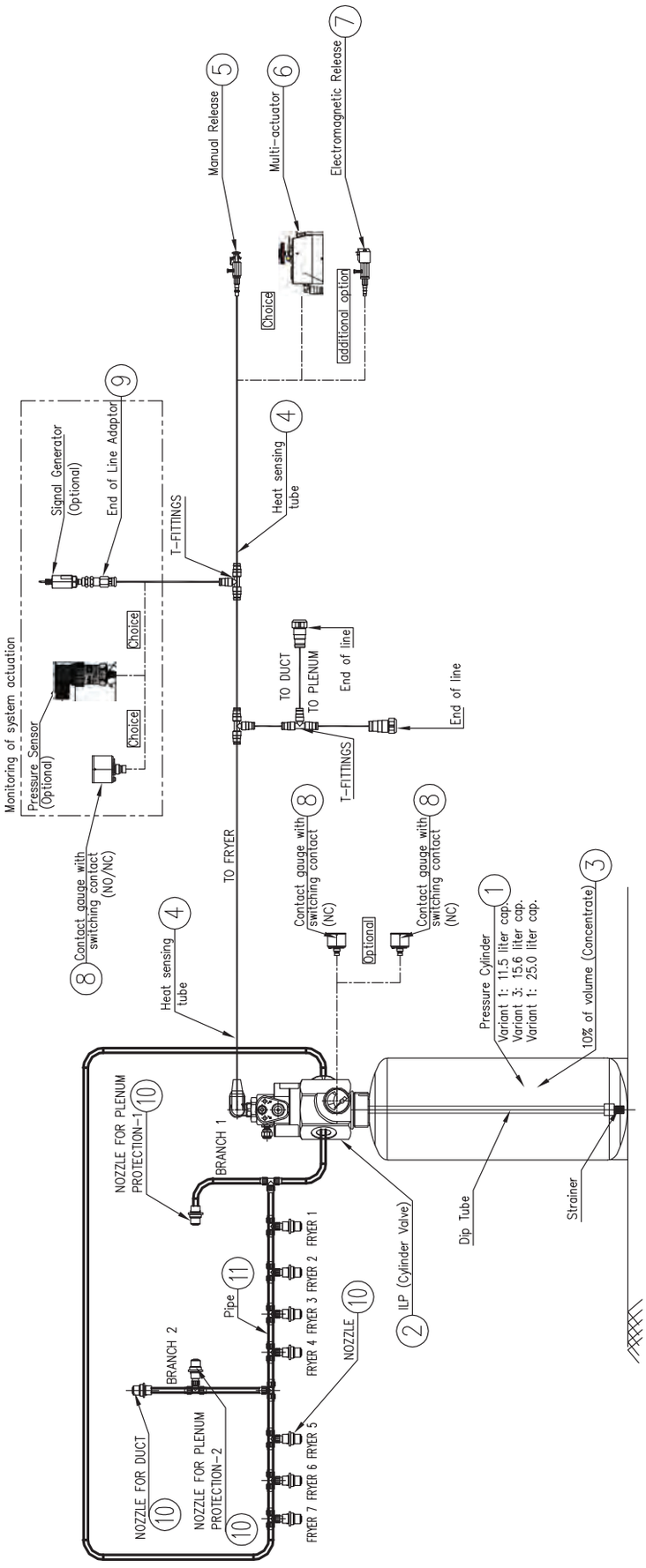



PULL
CEASE
FIRE

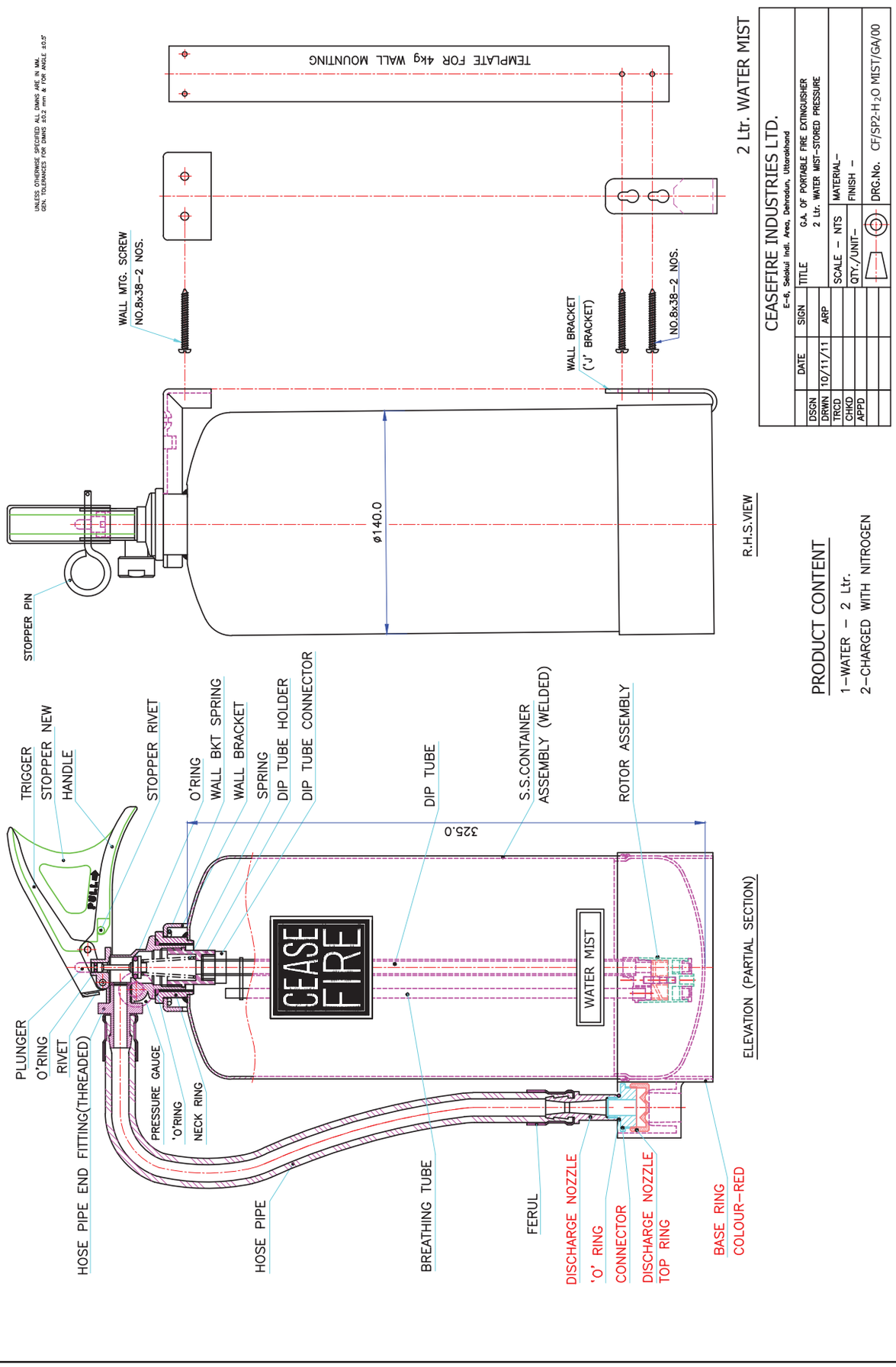
THE WATERMIST KITCHEN SUPPRESSION SYSTEM



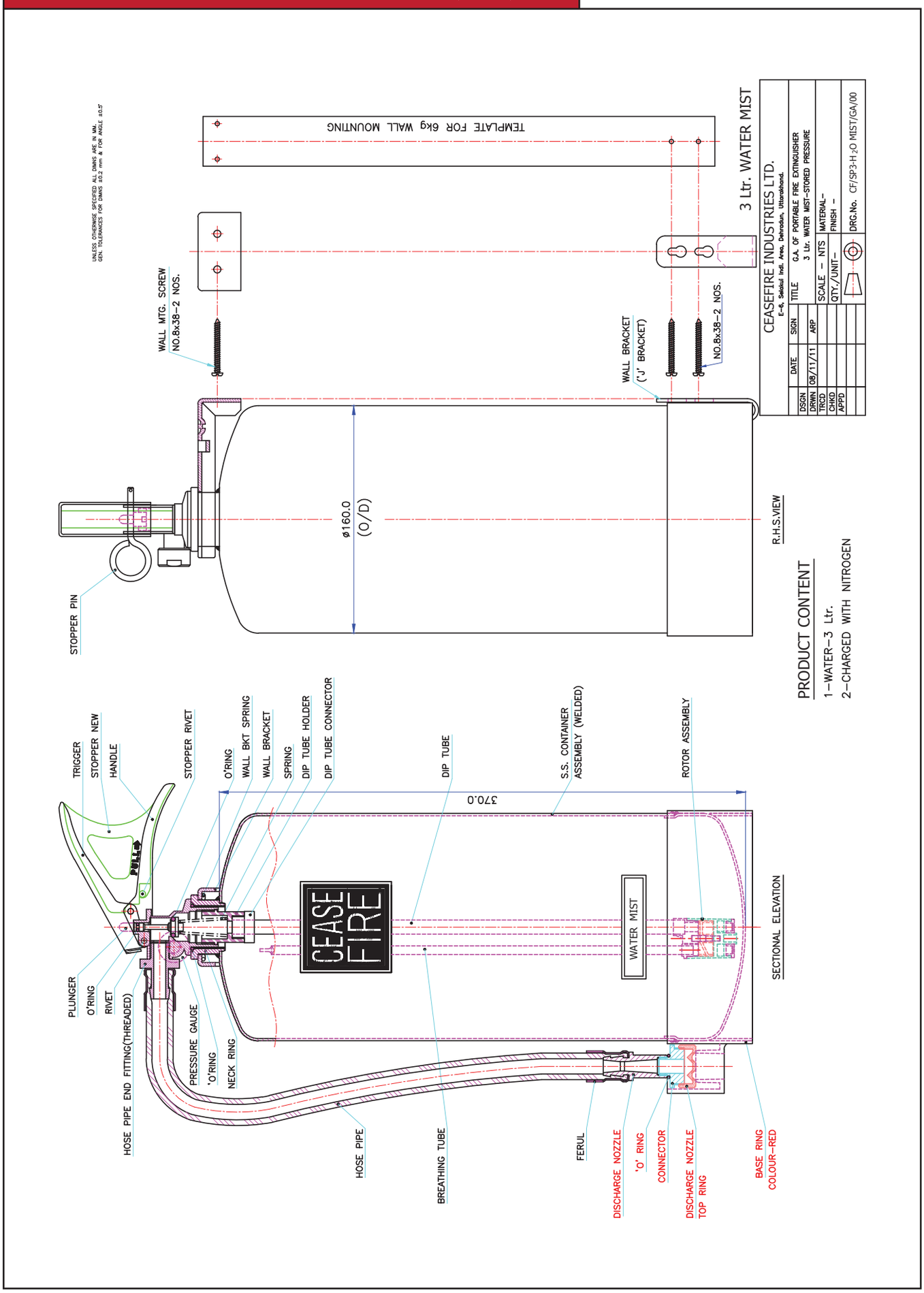
THE WET CHEMICAL KITCHEN SUPPRESSION SYSTEM



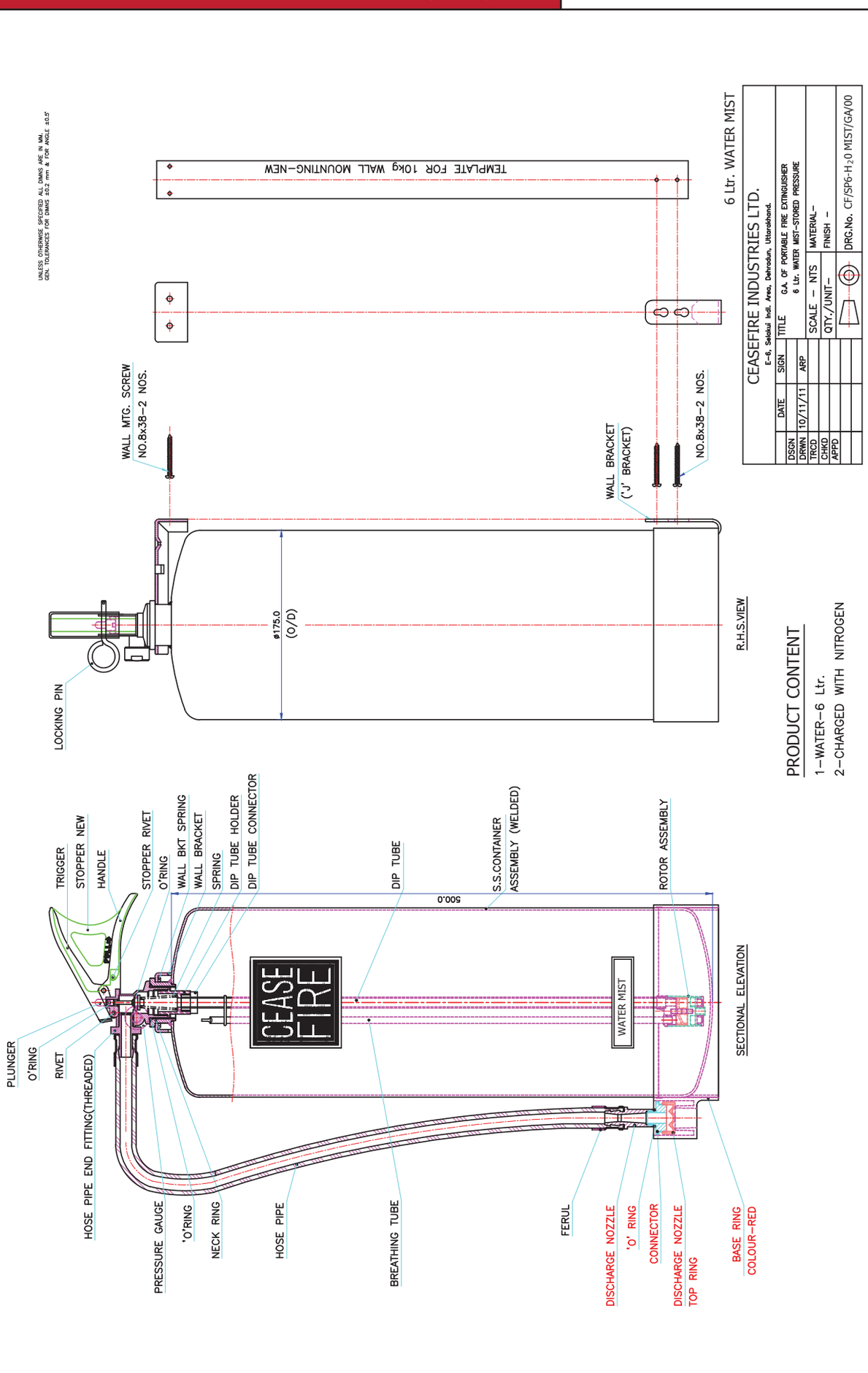
WATERMIST-BASED PORTABLE EXTINGUISHERS (CHPS) 2 Ltr.



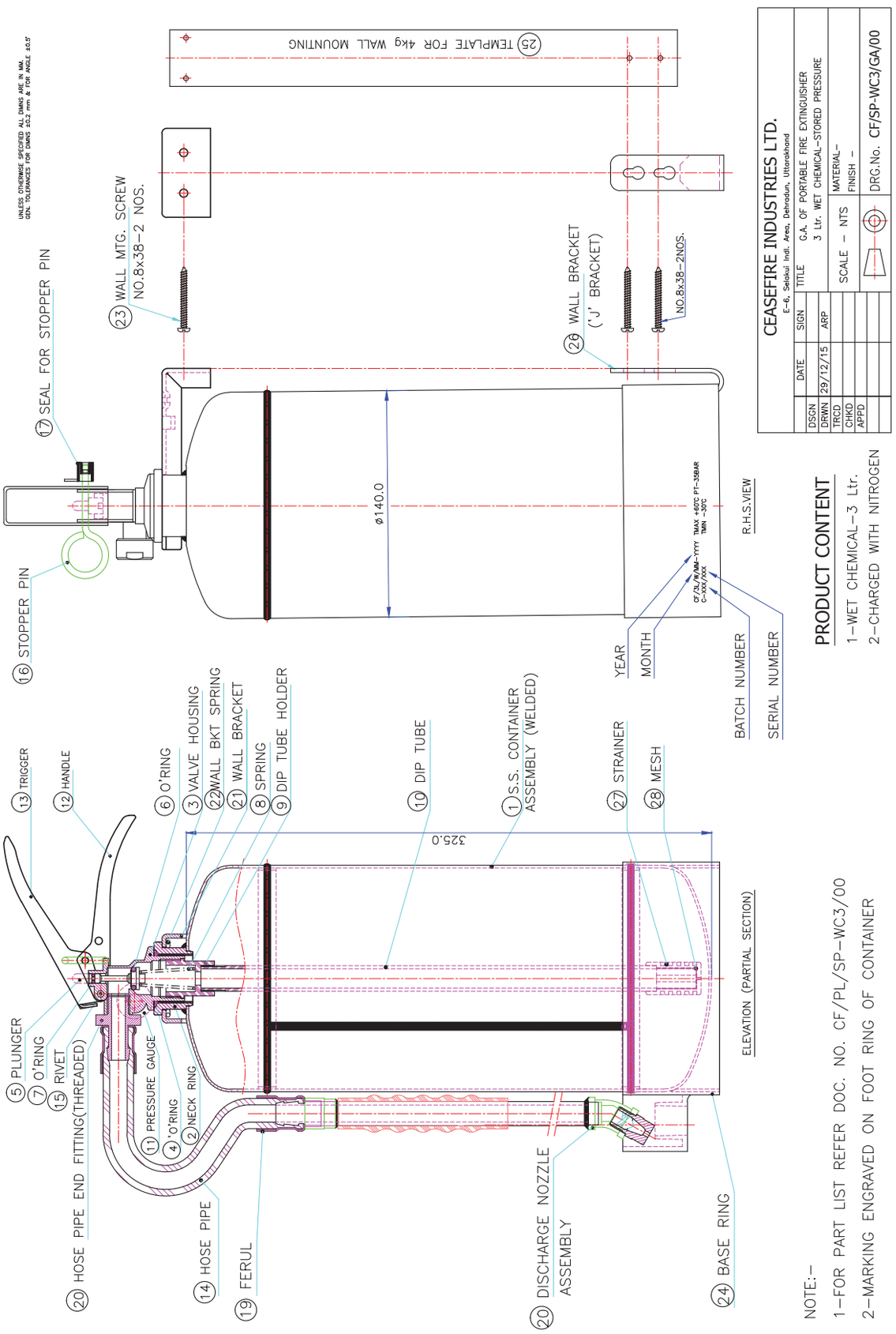
WATERMIST-BASED PORTABLE EXTINGUISHERS (CHPS) 3 Ltr.



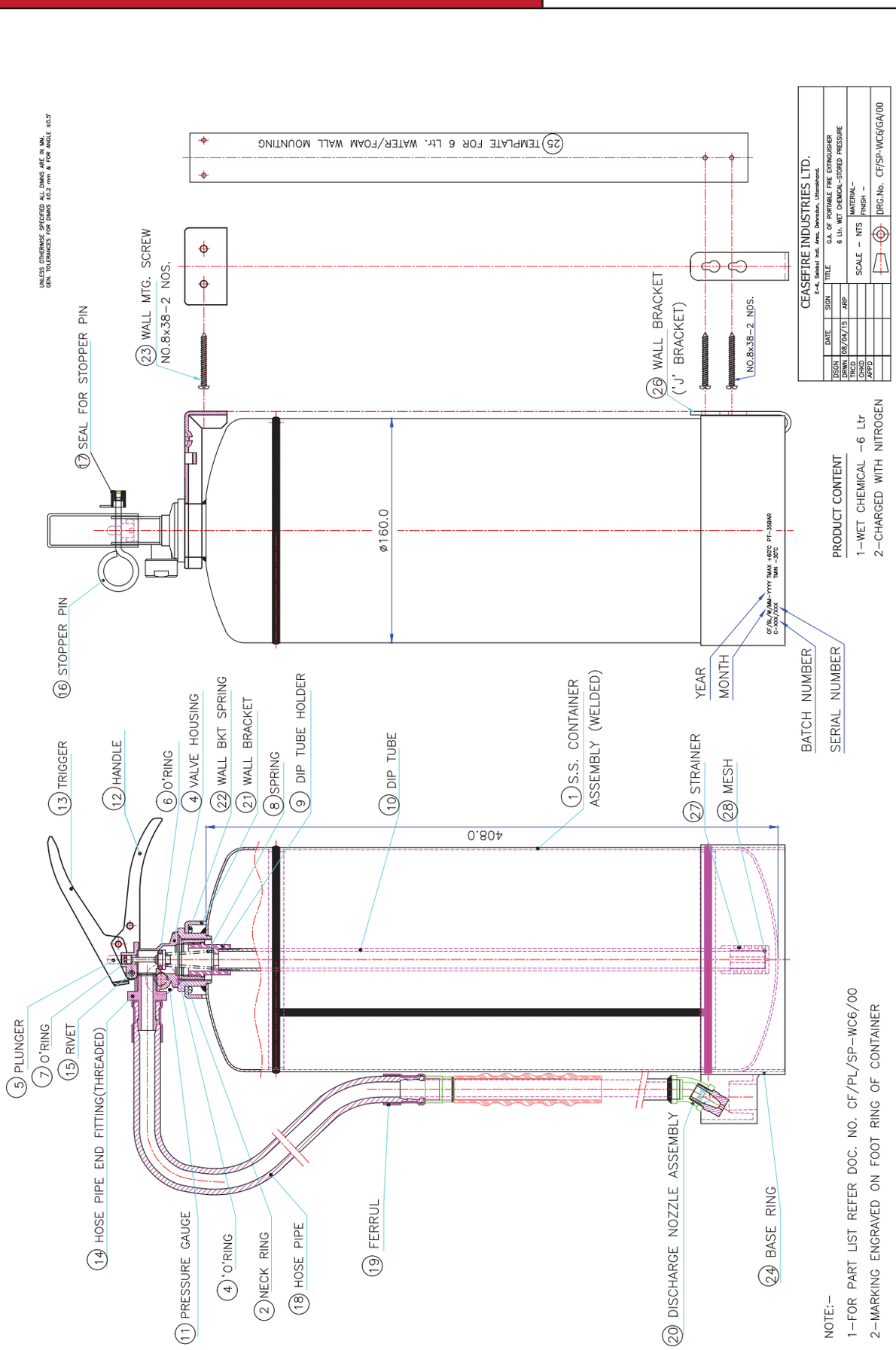
WATERMIST-BASED PORTABLE EXTINGUISHERS (CHPS) 6 Ltr.



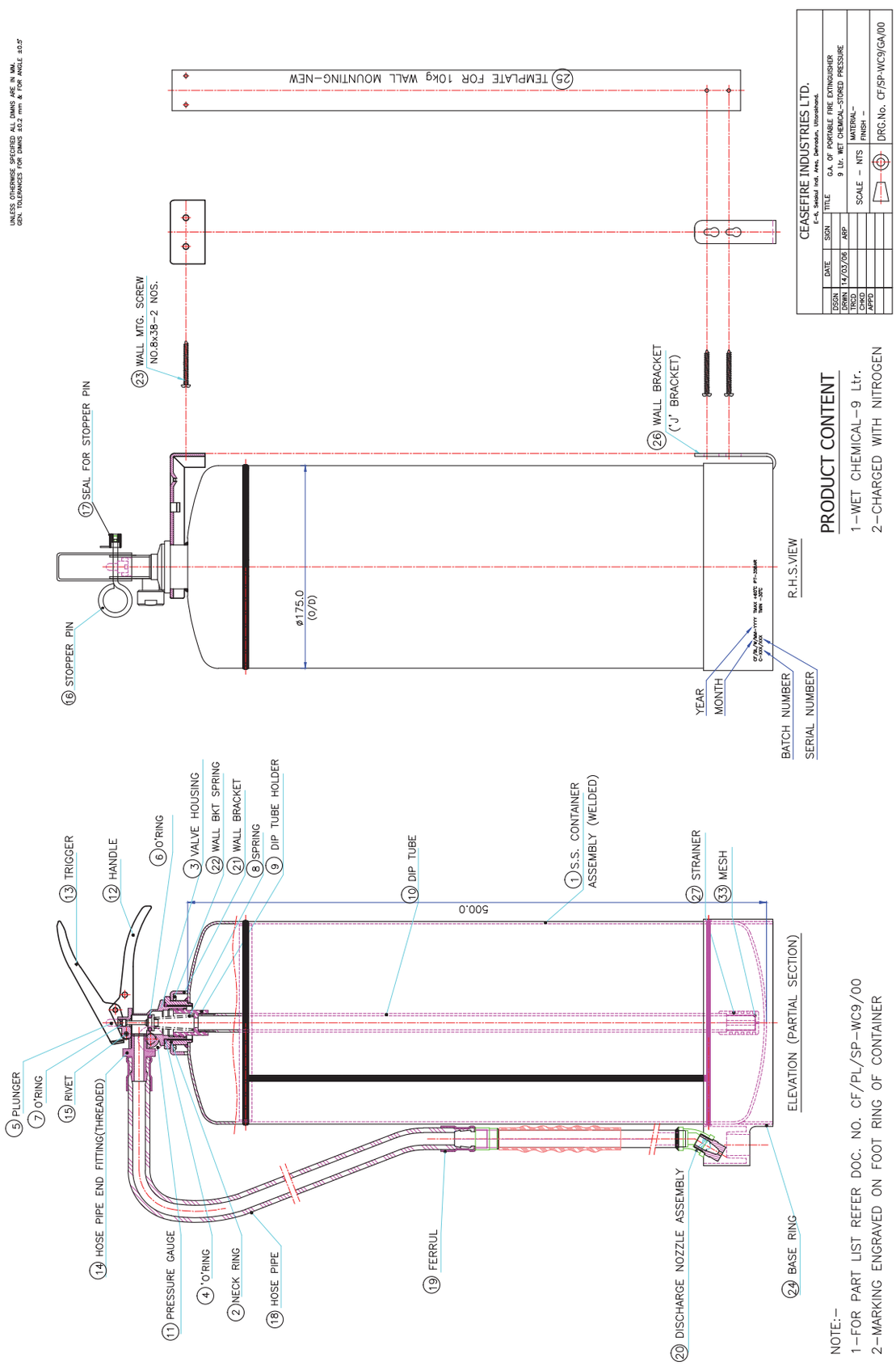
WET CHEMICAL-BASED PORTABLE EXTINGUISHERS 3 Ltr.



WET CHEMICAL-BASED PORTABLE EXTINGUISHERS 6 Ltr.



WET CHEMICAL-BASED PORTABLE EXTINGUISHERS 9 Ltr.



CEASE FIRE

WORLD SERIES

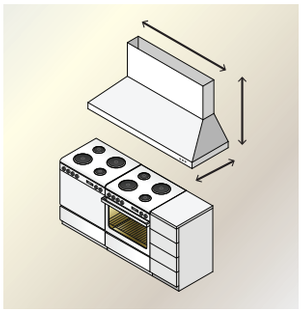
WHY CEASEFIRE:

What gives Ceasefire's Kitchen Firefighting Range an edge over other players in the industry?

DESIGN & CUSTOMISATION SUPPORT

A Kitchen Fire Suppression System is quite unlike any portable extinguisher.

For one, it can't be purchased off the shelf and put to use. Two, the system needs to be customised, designed and configured to meet the specifications of the space it's being installed in. Three, a wrongly designed system is guaranteed to be ineffective.

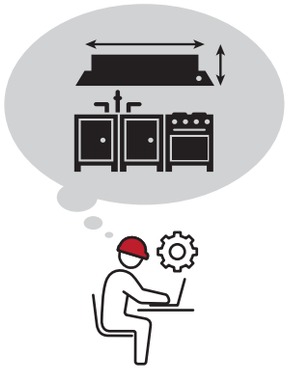


Ceasefire builds customised Kitchen Fire Suppression Systems. Every system's design and configuration is unique depending upon the kitchen it needs to protect.

Ceasefire's Kitchen Fire Suppression System's design is extremely comprehensive.

The system is configured specifically for a given kitchen site, and the installation details are laid out.

These comply with the highest international standards.



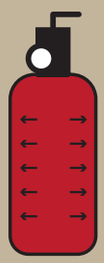
We have a team of specialised, highly experienced engineers and draftsmen who use CAD drawings to design the layout of the heat sensing tubes and nozzles.

Then, pre-determined scientific methods are used to calculate the requirement of extinguishing agent for the kitchen that needs protecting.

THE SYSTEM'S CRITICAL COMPONENTS

- **Hooter**
- **Nozzles**
- **The Detection Sensor**
- **Connectors**
- **Manual Actuator**
- **Response Panel**
- **The Valve**
- **The Extinguishing Agent Container**
- **The Extinguishing Agent**

THE CONTAINER BODY



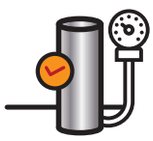
Since the stainless steel container holds the extinguishing agent in a continuous high pressure situation in a harsh kitchen environment, it has to be of a particular quality and thickness.

TATA STEEL ESSAR STEEL सेल SAIL

Ceasefire purchases steel directly from original and reputed producers - Tata Steel, Essar Steel or SAIL.

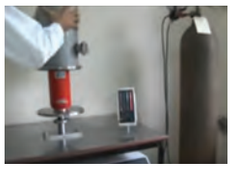
After mechanically rolling the sheet to form a cylinder shape, the two ends are seamed together by advanced welding technology - Motorised Metal Inert Gas (MIG) CO_2 welding. This motorised technology creates the strongest, smoothest welded seam joint and causes no abrasion while smoothening the seam.

Every single Ceasefire container is:



Hydrostatically Pressure Tested

Chemically treated against rusting, flaking and corrosion.



Helium Leak Tested

To endure extreme weather conditions.

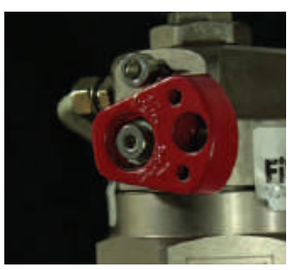
THE VALVE

In such systems, valves work on the principle of pressure differential, and directly correspond with the Detection Tube and the Discharge Line.

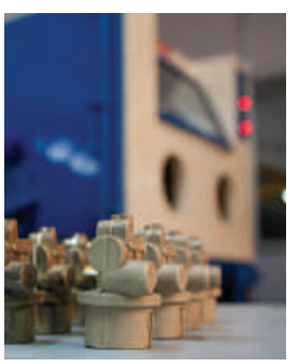
The Indirect Pressure Valve is the system's main component, and is directly involved in the discharge of the agent upon activation.

In case of a fire, the valve senses a drop in pressure in the Detection Line, and allows the extinguishing agent to rush to the nozzles.

Our heavy duty valves are made of high-grade brass/stainless steel which have an integrated Ball Valve feature. This ensures no leakages whatsoever!



The Open/Close switch is designed in such a way that it cannot be accidentally closed. A singular switch regulates the system's ports and only with an allen key can it be accessed. Thus making it 100% safe against being accidentally turned off. The status of the Open/Close knob can be electronically monitored by the Control Panel.



The valves used in Ceasefire's Kitchen Suppression Systems are PED approved and come with inbuilt pneumatic actuation mechanism.

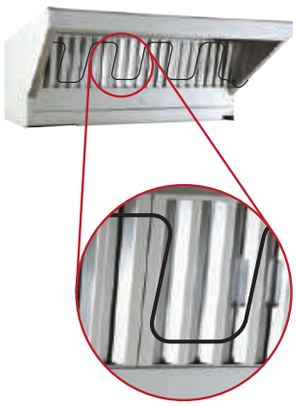
Our superior, specialised manufacturing set up allows for the linking of the Heat Sensing Tube with the cylinder when the valve is closed.

THE DETECTION SENSOR

The functioning of a Kitchen Fire Suppression System depends upon the detection device.

This sensor must do both, detection and activation.

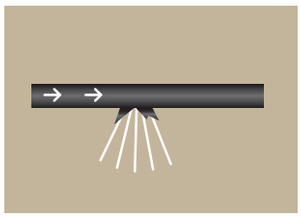
It needs to be critically positioned to cover all the fire prone areas in order to provide linear detection and an un-obtrusive layout. The sensor needs to burst at the right temperature point. If it fails, the system is useless.



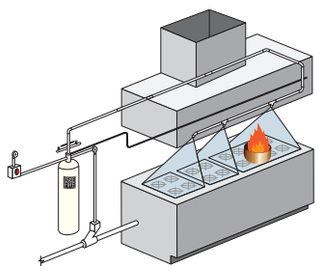
Ceasefire uses advanced Heat Sensing Tube-based superior detection technology. This allows for uniform protection throughout the length of the kitchen hood with linear detection and an un-obtrusive layout.

The Polyamide Heat Sensing Tube with improved burst characteristics acts as a linear heat and flame detector.

The Heat Sensing Tube is UV Protected for a longer life with increased operating temperature, offering robust detection. And with distinct puncture characteristics to actuate the system effectively.



There are no intermediate moving mechanical parts for actuation other than pneumatic pressure itself.



Ceasefire uses a tried and tested LPCB: LPS 1223 approved detection system, which requires no extensive installation and no extensive serviceable parts and minimal down time.

Minimal usage of the tube makes the system less susceptible to pressure drop by reduction of escape area for Nitrogen, thus giving a more robust and stable installation.

THE EXTINGUISHING AGENT

In such systems, valves work on the principle of pressure differential, and directly correspond with the Detection Tube and the Discharge Line.

The Indirect Pressure Valve is the system's main component, and is directly involved in the discharge of the agent upon activation.

In case of a fire, the valve senses a drop in pressure in the Detection Line, and allows the extinguishing agent to rush to the nozzles.

Ceasefire is the only company which offers the option of two variants, based on the kind of extinguishing agents - Watermist and Wet Chemical.

Watermist, as the name suggests, combines water with ground-breaking Watermist technology.

Causes zero contamination
- No collateral damage
- Minimal downtime

Ceasefire's Wet Chemical systems with a special wetting agent.

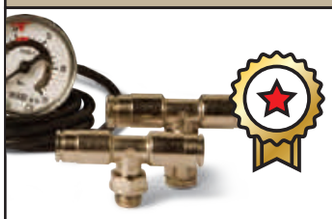
- That has degreasing and cleaning properties
- Biodegradable

Both technological breakthroughs, the systems are based on advanced heat sensing tube-based detection, offering superior, uniform detection.

The two systems are designed to fight any kind of fire in commercial and industrial kitchens in hotels, restaurants, fast food chains, food courts, catering facilities, schools, religious premises and more.

CONNECTORS

A Kitchen Fire Suppression System is only capable of fighting a fire if it's pressurised. The pressure holding ability of the system is determined by the container, heat sensing tube, valve, and the connectors that join the tubes to the valve and container.



- The connectors used by Ceasefire meet the highest international standards in tightness and pressure holding capacity.
- Each and every connector is thoroughly checked before being installed in the system.

The Heat Sensing Tube and Connectors in Ceasefire Systems are designed to complete the detection and activation line seamlessly, and maintain the pressure throughout the service life of the system - without any flaws.

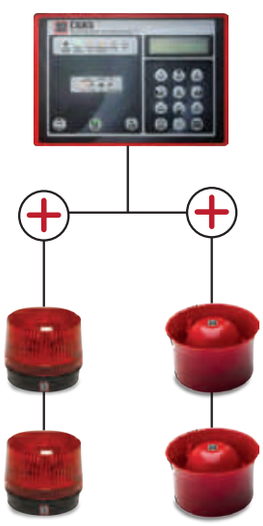
CONTROL PANEL

Kitchen Fire Suppression Systems need to be electronically monitored to ensure they're ready to come to the rescue.

In larger kitchens with scaled up systems, it's even more essential to have the system in working order.

Ceasefire's In-panel Fire Suppression System comes equipped with a state-of-the-art Control Panel with the ability to monitor up to four cylinder systems.

Plus the provision to monitor the status of each of these four systems' Valve and Pressure Switches.



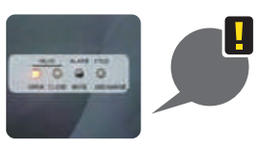
Ceasefire's Kitchen Fire Suppression System comes equipped with a special relay output, that enables the user to install additional Hooters (sound alarms), and Lamp Flashers (visual indicators) on the Detection Line.

They can be installed near the system anywhere depending on the requirements of the premise or the user.

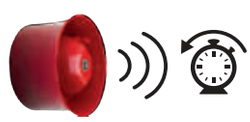
There are total 6 programmable modes on Ceasefire's Control Panels.

1. Charging Current
2. Zone Naming
3. Sense Delay Set
4. Relay Switch Type Selection Select
5. Pressure Type Select
6. Set Password

The Panels have an in built 24-hour battery back up and a user-friendly LCD display.

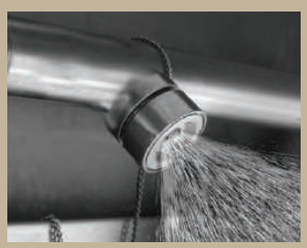


Spells out the problem in case of activation.



The Panel can be programmed to delay the sounder and relay activation by up to 5 seconds.

NOZZLES

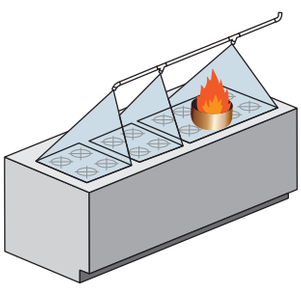


Fitted in the kitchen hood, nozzles play a vital role as they enable effective discharge of the agent.

The nozzles must be designed keeping the extinguishing agent being used in mind, the size of the container, and the length of the kitchen hood.

At Ceasefire, our technologically advanced nozzles ensure enhanced throw, and their strategic positioning rules out any possibility of a blind spot in the kitchen.

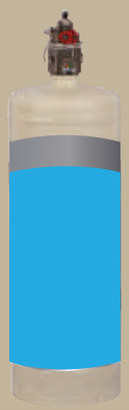
Furthermore, the nozzles are designed to fight fires arising from any kind of cooking: deep-frying, grilling, shallow-frying, roasting, sautéing, and more.



Ceasefire's nozzles ensure:

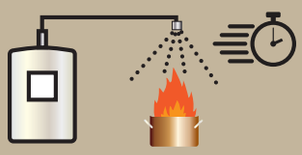
- Optimum angle of discharge of the extinguishing agent
- The ideal flow rate
- The perfect mixture of air and agent for maximum efficiency.

THE STORED PRESSURE AGENT CONTAINER



The source of the pressure supply in a suppression system plays a vital role in its successful functioning.

A spot pressure system may cause delays in discharge of the extinguishing agent.

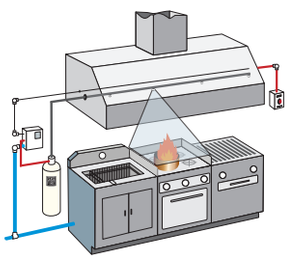


A stored pressure suppression system works within seconds.

Ceasefire's offers only stored pressure Kitchen Suppression Systems in single containers.

Ceasefire's systems are designed with minimum movable parts, so that the system is easy to install.

We offer single containers so that you need just one container, no matter the size of the kitchen.

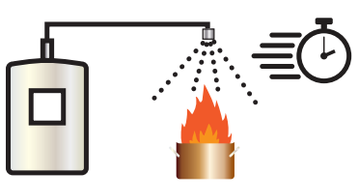


Minimal piping and obtrusion in the kitchen area.

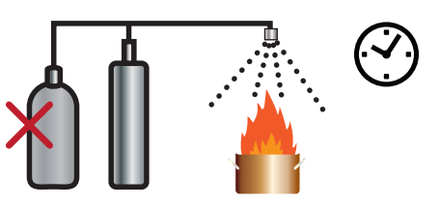
• Minimal space usage of mechanical parts and minimal service requirements.

Ceasefire's systems are built to need minimal modifications, if any, to the kitchen structure. Simplified design parameters allow you the flexibility to position the container wherever you want, without worrying about the clutter of multi-cylinder systems.

Ceasefire's Watermist-based and Wet Chemical-based systems are both stored pressured.



This does away with the hassle of first kicking the cartridge in action, waiting for it to charge before firefighting.



Saving time, and protecting property and lives. Ceasefire has singular direct actuation for supply with no separate actuation units and propellant tank cylinders.

INSTALLATION SUPPORT

One of the most important steps towards ensuring that your system is functioning perfectly, is to make sure that it is installed properly. Even the best designed system with the best quality components can fail if the system is not installed correctly. In short, your system is only as good as the installation.

At Ceasefire, we have a team of trained technical support professionals to install the Kitchen Fire Suppression System. The installation, overlooked by our engineers, meets every standard and guideline set.

SERVICE NETWORK AND SUPPORT

A high-end specialised system requires specialised service support.

These systems are complicated, and if the manufacturer of the system cannot provide service support at that location, it can lead to much confusion.

- At Ceasefire, we have a direct, nationwide delivery and service network spread across more than 300 Indian towns and cities.
- Ceasefire has a dedicated team of specially trained engineers and technicians, with experience in installing and servicing these systems.

CERTIFICATIONS & APPROVALS

With time bound meals continuously going out through the day, kitchens are highly susceptible to fires. A Kitchen Fire Suppression System is a highly specialised system that's under tremendous pressure.

It's therefore essential for such systems to be designed, manufactured and installed according to certified and approved benchmark standards set by competent certification agencies.

The Ceasefire KItchen Fire Suppression Systems have the British LPCB: LPS 1223 certification for both its Watermist and Wet Chemical variants. These systems have successfully passed the most stringent test criteria laid out by the British certification agency under the category of kitchen fire suppression systems. Which means not one or two components, but the system as a whole is fully certified.


CEASE FIRE
Kitchen fire suppression
1. PULL THE SAFETY PIN
2. HIT THE RED STRIKE KNOB
3. LEAVE FIRE AREA
4. INFORM EMERGENCY SERVICES
FOR USE ON FIRES INVOLVING:
WATERMIST
WET CHEMICAL