

# FIRE CONCEPT™

*your first step to calm fire*

Fire is a hazardous disaster that can cause a lot of damage to property and human life. Fire extinguishers and other fire safety products ensure the minimisation of damage caused and prevent such disasters completely. Every year crores of property are gutted in fire incidents. According to a survey conducted, approximately 35 Indians lose their lives every day in fire accidents. We collectively can avert and reduce fire-related incidents. Our company's motto is to create awareness about fire safety and manufacture the best quality fire safety products.

Fire Concept is central India's first Bureau of Indian Standard (BIS) approved (IS 15683:2018) manufacturing unit based at MIDC industrial area, Butibori, Nagpur. The quality of manufactured products and services provided by Fire Concept is as per Indian standard. Fire Concept is CE as well as an ISO 9001: 2015 certified company.

## ■ Why Fire Concept ?

At Fire Concept, we make sure that each product manufactured and the services provided are as per the standards stated by the government. At Fire Concept, we have state of the art laboratory with latest testing equipments. The latest operational machinery helps us to provide top-notch quality products and services. Because of our quality and testing facilities our products have received high fire rating as compared to most of the companies in the market.

Every fire extinguisher at Fire Concept is manufactured with high-quality steel from world-class renowned companies like Tata and Jindal steel. The thickness of each cylinder is a minimum of 1.5 mm, which is 30% more than the required of 1.2 mm by IS. At the Fire Concept, every fire extinguisher passes through leakage test and hydraulic pressure test at 35 bar. Out of every batch, random samples are collected which undergo the following tests as per the BIS standard.

### 1) Resistance To Temperature Changes-

Portable extinguishers shall operate at temperatures within one of the temperature range as given by IS. Fire extinguishers are kept either in an oven or deep freezer for 24 hours to check the performance. The extinguishers manufactured by us can operate in a higher range of -30°C to +60°C, which is the highest range and very few companies can provide extinguishers in this range.

### 2) Burst Test-

This test enables the capacity of the cylinder to sustain pressure. As per standard test pressure, for low-pressure extinguishers should not be less than 35 bar, and burst pressure should not be less than 55 bar. The extinguishers manufactured at Fire Concept pass all these tests, and the cylinder bursts at not less than 90 bar on the body. It proves the quality of our fire extinguishers.

**3) Cyclic Pressure Test-**

During this test our extinguisher sustains without rupture 5000 cycles from 0 to the test pressure i.e.  $P_t = 35$  bar and back to 0 bar at the same rate of 6 cycles/min.

**4) Tapping Test-**

During this test, charged extinguishers are dropped 500 times from a height of 15 mm.

**5) Mechanical Resistance (Impact Resistance) Test-**

This test intends to prove the resistance of the extinguisher, and particularly that of the head of the fittings from damage from falling objects or impact with fixed surfaces. The extinguisher shall be judged fit and proper if during the impact tests there is no evidence of bursting, breakage or ejection of components that risks the safety of the user.

**6) Resistance to corrosion test (Salt Spray Test)-**

During this test a completely charged fire extinguisher undergoes a salt spray test for 240 hours following a drying period of 24 hours at room temperature.

**7) Crushing Test-**

We crush the extinguisher and reduce it to 1/3 of its original outer diameter. Then we fill the extinguisher with water and increase the pressure to 35 bar. The extinguisher shall not exhibit any cracks or leaks.

**8) Vibration Test-**

An extinguisher must be capable of standing exposures to the conditions of vibration test without the development of physical weakness that impairs its operation.

**9) Discharge Test-**

This test is to check the minimum effective discharge time and bulk range of the discharge. It is also to verify the percentage of powder discharged.

**10) Load bearing Test-**

Brackets provided along with the fire extinguisher are tested five times with the weight of a complete charged cylinder.

At Fire Concept, we believe in the quality and safety of end-users. Our team works hard and follows all timely guidance from BIS to provide the best quality products and services to you. Fire Concept is always there to assist you to save your life and assets.



**OUR PRODUCTS :-**

**1) ABC TYPE DRY CHEMICAL POWDER FIRE EXTINGUISHER: -**

ABC type dry chemical fire extinguisher are used for almost every class of fire except kitchen fire caused due to oils. It can be used on Class A, Class B, Class C and electrically started fire. It is the most used fire extinguisher. The following are the variants of ABC dry chemical type fire extinguisher. As per Indian Standards (IS 15683:2018), Mono Ammonium Phosphate (MAP) should be minimum 40%; however, we provide MAP 50% and MAP 90% in our products to ensure its efficiency.

**ABC Type Fire Extinguisher -**

<b>CAPACITY</b>	<b>2 KG</b>	<b>4 KG</b>	<b>6 KG</b>
<b>MAP (%) (As Per IS 4308)</b>	50/90	50/90	50/90
<b>Propellant Gas</b>	Nitrogen	Nitrogen	Nitrogen
<b>Fire Rating</b>	1A – 34B	2A-55B	3A-89B
<b>Operating Temperature</b>	-30°C to +60°C	-30°C to +60°C	-30°C to +60°C
<b>Tested Pressure at Operating Pressure</b>	35 Bar	35 Bar	35 Bar
<b>Discharge Time</b>	10 s	15 s	18 s
<b>Bulk Range Of Discharge</b>	2.5 m	3 m	3.5 m

**\* 1kg And 9kg ABC Type Fire Extinguisher  
Will Soon Be Available**



## Modular Type Automatic Fire Extinguisher -

Modular type automatic fire extinguishers are ceiling mounted type of extinguishers that automatically starts discharging when the ambient temperature turns 68 degree Celsius. They are provided in ABC powder type or clean agent type. This fire extinguishers are used mostly where there is less human presence to operate the fire extinguisher. The following are the type of modular automatic fire extinguisher.



Capacity	2kg	5kg	10kg	15kg
<b>Discharge Agent</b>	ABC Dry Powder/ Cleaning Agent	ABC Dry Powder/ Cleaning Agent	ABC Dry Powder/ Cleaning Agent	ABC Dry Powder/ Cleaning Agent
<b>Area Coverage</b>	1 -1.5 mtr	1.5 – 2 mtr	1.75 – 2.25 mtr	2 – 3 mtr
<b>Test Pressure</b>	35kg/ cm2	35kg/ cm2	35kg/ cm2	35kg/ cm2
<b>Total Weight</b>	3.8 kg	8.5 kg	15kg	20 kg
<b>Charged Pressure</b>	7-10 kgf/cm2	7-10 kgf/cm2	7-10 kgf/cm2	10-13 kgf/cm2
<b>Bulb Temperature</b>	68 degree	68 degree	68 degree	68 degree



## Co2 Type Fire Extinguisher -

These contain only pressurized carbon dioxide gas and therefore leave no residue. They are suitable to use on fires involving burning liquids (Class B) and electrical fires; such as large computer equipment, so are practical in offices. CO2 works by suffocating the fire and does not cause damage to the electrical items or cause the system to short circuit. Th CO2 type fire extinguisher will come in two varieties of **2kg** and **4.5kg** capacity.

## Water Fire Extinguisher -

Water extinguishers are only suitable for Class A fires consisting of paper, wood, straw, coal, rubber, solid plastics and soft furnishings. Water extinguishers are the easiest to maintain variety and the least hazardous since they only contain water. They cool the fire by soaking it and the materials with water. It extinguishes the flames, absorbing heat from burning objects. They may have spray or jet nozzles and are usually able to put out a fire. A drawback is that they cannot be used on fire caused due to fat/oil or any burning liquids.



## Foam Type Fire Extinguisher -

Foam fire extinguishers are effective on Class A and B fires. They are most suited to extinguishing liquid fires such as petrol or diesel and are more versatile than water jet extinguishers because they are also functional on solids such as wood and paper. The foam extinguishes liquid fires by sealing the surface of the liquid, preventing flammable vapour from reaching the air and starving the fire of fuel. They are not suitable for use on free-flowing liquid fires.

## OTHER SAFETY PRODUCTS :

### Automatic Fire Balls -

Automatic Fire Ball is a new revolutionary product which extinguishes fires, when in direct contact with flames. Install near fire-prone areas or throw it into a live fire and it will act automatically burst within 10 - 15 seconds. It consists of two categories -



**DRUM SHAPED FIRE BALLS**



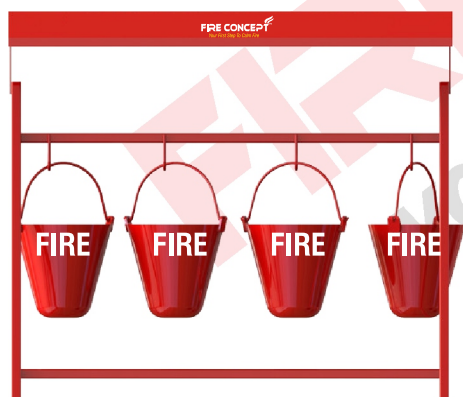
**ROUND SHAPED FIRE BALLS**

### Fire Blanket -

A fire blanket is a safety device designed to extinguish incipient (starting) fires. It consists of a sheet of a fire retardant material that is placed over a fire in order to smother it.

Small fire blankets, such as for use in kitchens and around the home are usually made of glass fiber and sometimes kevlar, and are folded into a quick-release contraption for ease of storage.

Larger fire blankets, for use in laboratory and industrial situations, are often made of wool (sometimes treated with a flame retardant fluid). These blankets are usually mounted in vertical quick-release container so that they can be easily pulled out and wrapped round a person whose clothes are on fire.



### Fire Bucket With Stand-

A **fire bucket** is a bucket filled with water or sand which is used to prevent or extinguish fires. The main advantages of fire buckets are that they are cheap, reliable, easy to use and can be quickly refilled and reinstated. The sand from a fire bucket can also be used to absorb spills of flammable liquids and render them less dangerous, by reducing the risk of ignition and explosion.



## OUR SERVICES :

### 1) REFILLING SERVICES WITH HYDRO TESTING :-

We provide refilling services for all types of fire extinguisher, such as ABC dry powder type, CO2 type fire extinguisher, water and foam type fire extinguishers.

Our refilling services are implemented as per the Indian standards (IS:2190). We make sure that every extinguisher we have collected goes through thorough inspection and hydro-testing for any leakage or damage. The refilling of the cylinder is thoroughly cleaned and refilled with fresh discharge agent as per (IS:2190). We also check for the faulty spares and change them. All the material used is ISI approved. We provide the best quality services to make sure that your safety comes first for us.

### 2) AMC (Annual Maintenance Contract) :-

We provide an annual maintenance contract for the existing fire fighting equipment installed at the site. Our team of experts offer onsite visit on monthly, quarterly, half-yearly as well yearly basis. The AMC provides an emergency response too. If required, we also take care of the refilling of the existing cylinders and the replacement of other fire safety products.

### 3) DRY RUN / MOCK DRILL / TRAINING / PRESENTATION :-

In the event of a fire, the most critical factor is to know how to use the fire and safety products. It is noted that most of the places there are existing fire safety products, but the disaster gets amplified due to no knowledge of 'how to use the provided equipment's. Keeping that in mind, we take the initiative to train your staff and personal on how to use a different kind of fire safety products in the events of a fire. We also provide mock drill on how to exit the premises in case of fire and other disaster calamities. The guidelines provided by us are also focused on how to prevent and act during such emergencies. We also make the know-how of how to inspect the fire extinguishers, which are the things to consider and how to do a check-up of existing fire fighting equipment and how to keep a record of its due services and maintain log records.

## Don't Let Your Dream Go Up In Smoke

**Ensure Fire Safety,  
Save Life, Save Property.**



With

**FIRE CONCEPT™**  
*your first step to calm fire*

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