



PRODUCT MANUAL

FIRE EXTINGUISHER

**Mechanical Foam (AFFF) based
6 & 9 Liter Capacity-
Cartridge Operated**

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[KANEX FIRE EXTINGUISHER]

Mechanical Foam– 6 & 9 Liter Capacity

INTRODUCTION

This manual contains product description, installation, operating, maintenance, inspection and refilling for the KANEX brand Portable Water based Fire Extinguisher of capacity 9 Liter by weight of Liquid. This model is designed to extinguish 'A' and 'B' type fires involving material like Wood, Paper, Cotton, Plastic and Petro Chemical products, Paints, Resins, Pigment, Varnish,

The water based Fire Extinguisher is not used on compressed gas fire like LPG, CNG, etc. as well as on Electrical Fire.

PRODUCT DESCRIPTION

- The principal advantage of KANEX Portable type Water based Fire Extinguisher is that the fire extinguisher is handy type and it is easily handled by a single person.
- Body Shell made of Mild steel/SS sheet as per IS 15683 is constructed by welding and the shape of the body is cylindrical. The domes ends of the body are dished outwards.
- The charge, Water or solution of water and AFFF (Aqueous Film Forming Foam) of IS 4989 is an extinguishing media that gives blanketing effect on the fire to be put out. The charge is actuated by CO₂ gas cartridge of IS 4947.
- The discharge of the CO₂ gas is by puncturing the frangible disc of cartridge with the piercer needle of the cap. The squeeze grip valve/Cap is made of forged Brass material.
- The discharge nozzle is designed to adopt maximum aeration during the performance for AFFF type fire extinguisher and better performance in case of water CO₂ type Fire Extinguisher.

INSTALLATION

Installation of the KANEX Fire Extinguisher requires that the equipment be uncrated, placed in its proper position and secured in place with caster locks.

One set of accessories is packed with fire extinguisher for use in installation either attached with the body or loose in a packet. Please compare your supplied accessories with the following list.

Discharge Nozzle
Discharge Hose Pipe
CO₂ Gas Cartridge (Gas weight 60 Gm)
Wall Bracket



To assemble the Fire Extinguisher,

- Tighten the Discharge Hose (for AFFF type fire extinguisher) at discharge connection of the fire extinguisher. The end of the hose is fitted to the discharge nozzle
- Remove the Cap for filling the extinguishing charge
- The total Capacity of the fire extinguisher is 6 & 9 liter. The level up to which the solution (charge) filled is marked on the body externally by labeling “**SOLUTION LEVEL**”.
- For AFF Foam Solution is not only the water but it is the addition of AFFF foam and water. The total solution will be 9 liter. So addition will be as following
$$\begin{array}{rcl} 5640 \text{ ml} & + & 360 \text{ ml} & = & 6 \text{ liter} \\ 8460 \text{ ml} & + & 540 \text{ ml} & = & 9 \text{ liter} \\ \text{Water} & + & \text{AFFF (Foam)} & = & \text{Extinguishing solution} \end{array}$$
- Fill the clean water 5640/8460 ml in quantity. Add the AFFF foam solution
- Tighten the Cap ensuring the existence of Cartridge fitted with the cap and Cap washer into the Cap. For tightening rotation must be in clockwise direction
- Now, the “KANEX” brand water based Fire Extinguisher is ready to save your properties and lives against FIRE.
- Mount the Fir Extinguisher on wall bracket that shall be properly fitted on wall

OPERATION

- ✓ To be operated the Kanex fire extinguisher is held in an upright position
- ✓ The Discharge Hose is hold firmly in the hand.
- ✓ The safety sealing device is removed
- ✓ The locking clip is pulled
- ✓ The Knob of Cap is strike hard
- ✓ The discharge should be directed at the base of the flames

There are two methods of directing the discharge to adopt the better extinguishment

- a) The most commonly used method of agent application on contained flammable liquid fires is to start at the near edge and direct the discharge in a slow, side-to-side sweeping motion, gradually progressing toward the back of the fire.
- b) The other method is called ‘Over head application ‘. The discharge nozzle is directed in a dagger or downward position (at an angle of 45 degrees) toward the center of the burning area.

Generally, for spills fire, the side-to-side sweeping motion could give better results.

The discharge should be applied to the burning surface even after the flames are extinguished to allow added time for cooling and to prevent possible reflash.



PRINCIPALS OF OPERATION

The AFF foam agent extinguishes by blanketing on the Fire surface so that the oxygen levels are kept below the percentage required for combustion.

The range of discharge time for AFFF type fire extinguisher is min 8 seconds. The range of throw of jet is not less than 2 m. The percentage discharge of the extinguishing media is more than 90 %.

INSPECTION, MAINTENANCE AND RECHARGING

The owner or the designated agent or occupant of a property in which fire extinguishers are located shall be responsible for inspection, maintenance and recharging.

INSPECTION:

Fire Extinguisher shall be inspected when initially placed in service and then after at approximately 30 day intervals for routine maintenance. The inspection should be in following points of view.

- Safety Seals not broken or missing
- Visually damage, corrosion, leakage or clogged discharge connection
- Condition of nozzle, Hose Pipe, Cap, wall bracket and fire extinguisher itself
- Weighing of CO₂ cartridge should be carried out at an interval of at least 3 months.
- If the weight is found less than 10 % the stamped filled weight, embossed onto cartridge nut, send the CO₂ cartridge for recharging immediately.

RECHARGING:

It is important to reenergize the Fire Extinguisher as soon as possible to eliminate the potential of recombustion or fire. Each fire extinguisher shall have a tag or label securely attached that indicates the month and year recharging was performed and that identifies the person performing the service.

It is essential to recharge the fire extinguisher as soon as the extinguisher is used for either extinguishing the fire or used for demonstration. The extinguisher must be recharged at a stipulated time duration that is a due of refilling.

Fire Extinguisher Part List [AFFF- Mechanical Foam (Capacity 6&9 Liter)]

INDEX	DESCRIPTION	MOC	QTY.	UNIT
01	Body Shell	M.S.	01	No.
02	Valve body	Brass	01	No.
03	Neck Ring	M.S.	01	No.
04	Siphon Tube	Plastic	01	No.
05	Discharge Hose	EPDM	01	No.
07	Nozzle	Plastic	01	No.
08	CO2 Gas Cartridge (60 GM.)	M.S	01	No.
09	Mounting Bracket	M.S	01	No.