



# **PRODUCT MANUAL**

## **FIRE EXTINGUISHER**

**Trolley Mounted Mechanical Foam  
50 Liter Capacity**

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## [KANEX FIRE EXTINGUISHER]

### Mechanical Foam (Trolley Mounted) – 50 Liter Capacity

#### INTRODUCTION

This manual contains product description, installation, operating, maintenance, inspection and refilling for the KANEX brand Higher Capacity – Trolley mounted Mechanical Foam type Fire Extinguisher of capacity 50 Liter by weight of solution. This model is designed to extinguish ‘A’ and ‘B’ type fires involving material like Wood, Paper, Cotton, Plastic, etc...solid materials and Petro Chemical products, Paints, Resins, Pigment, Varnish.

**Trolley mounted Mechanical Foam type Fire Extinguisher of capacity 50 Liter is not used on compressed gas fire like LPG, CNG, etc. as well as on Electrical Fire.**

#### PRODUCT DESCRIPTION

- The principal advantage of KANEX Trolley mounted Mechanical Foam type Fire Extinguisher of capacity 50 Liter is that the fire extinguisher is mobile type and it is a larger version of the portable mechanical foam fire extinguishers.
- In principal, the design of such fire extinguishers is modified because of larger capacity, bulk and mass of the former to suit the mode of operation. Thus, they are mounted on an easy moving wheeled carriage trolley and suitable carrying handles.
- Body Shell made of hot rolled Mild steel sheet. Body is constructed by welding and the shape of the body is cylindrical. The domes ends of the body are dished outwards.
- The charge, solution of water and Aqueous Film Forming Foam of IS 4989 is an extinguishing media that gives blanketing effect on the fire to be put out. The solution is actuated by CO<sub>2</sub> gas contained in high pressure CO<sub>2</sub> gas cartridge of IS 4947.
- The discharge of the CO<sub>2</sub> gas is by puncturing the frangible disc of cartridge with the piercer needle of the cap. The Cap is made of forged Brass material.
- The discharge nozzle is designed to adopt maximum aeration during the performance

#### INSTALLATION

For installation pick up a convenient distance that shall not be longer than 15 meter from site and such a way that fire extinguisher can be easily driven from that location while required to fight with fire.

When selecting location of “KANEX” brand MECHANICAL FOAM TYPE FIRE EXTINGUISHER – CAPACITY 50 LITER, due consideration should be given to the nature of risk to be covered. The extinguisher should be placed in conspicuous positions. Generally this type of fire extinguishers should be placed as near as possible to the center of the area into which risk of fire is assumed high. To identify the class of fire risk is chief essential for adequate location for placing the fire extinguisher. The Trolley mounted (Wheel carriage type)



fire extinguisher is designed in such a higher capacity Fire extinguisher for better mobility. To utilize the facility of mobility, the extinguisher must be kept at risk free of any obstructions.

Following are the steps to make ready to operate the fire extinguisher to fight with the fire to prevent your very expensive capitals and properties

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 (length: 3 m)
- CO<sub>2</sub> Gas Cartridge (Gas weight 300 gm)
- Washer/s
- Pair of Wheel
- AFFF can (3.2 ltr)

- Make sure the drain plug at the bottom of the body is properly fitted
- The total Capacity of the fire extinguisher is 50 liter. The level up to which the Charge (Solution) is filled is marked on the body externally by labeling “**SOLUTION LEVEL**”. The level is also permanently marked into the body in form of an M.S. Strip.
- Solution is not only the water but it is the addition of AFFF foam and water. The total solution will be 50 liter. So addition will be as following  
$$46.8 \text{ liter} + 3.2 \text{ liter} = 50 \text{ liter}$$
$$\text{Water} + \text{AFFF (Foam)} = \text{Extinguishing solution}$$
- Fill the clean water 46.8 liter in quantity. Add the AFFF foam solution Can into the water
- Tighten the Cap ensuring the existence of cap washer with the cap. For tightening rotation must be in clockwise direction. Make sure that the CO<sub>2</sub> Gas Cartridge is fitted with the Cap.
- Connect the Discharge Hose with the fire extinguisher at discharge connection
- Wind the Discharge hose on the clamps provided and put the nozzle into its resting clamp.
- Now, the “KANEX” brand Mechanical Foam type Fire Extinguisher is ready to save your properties and lives against FIRE

The operating instruction and the maintenance instructions are clearly mentioned in label on the Fire Extinguisher. It is advised to go through all the details provided on the label with sharpen eyes.

### **OPERATION**

- ✓ To be operated the Kanex fire extinguisher is held in an upright position
- ✓ The Discharge Hose is uncoiled
- ✓ The safety sealing device is removed
- ✓ The Safety 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 Aqueous Film Forming Foam agent extinguishes by blanketing on the Fire surface so that the oxygen levels are kept below the percentage required for combustion. The method of expulsion of AFFF is by means of pressure produced from liquefied CO<sub>2</sub> gas from the gas cartridge.

The discharge time for higher capacity "KANEX" brand Trolley mounted Mechanical Foam type Fire Extinguisher, Capacity of 50 Ltr varies from 60 to 180 seconds. The discharge jet range of the discharge stream is more than 10 meter. The percentage discharge of the extinguishing media is more than 90 %.

## **INSPECTION, MANINTENANCE 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, trolley mountings, mobility and fire extinguisher itself
- Weighing of CO<sub>2</sub> 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 CO<sub>2</sub> 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**  
**[Mechanical Foam- Trolley mounted (Capacity 50 Ltr.)]**

<b>INDEX</b>	<b>DESCRIPTION</b>	<b>MOC</b>	<b>QTY.</b>	<b>UNIT</b>
01	Body Shell	M.S.	01	No.
02	Top dish	M.S.	01	No.
03	Bottom dish	M.S.	01	No.
04	Bottom Ring	M.S.	01	No.
05	Neck Ring	M.S.	01	No.
06	Drain Ring	M.S.	01	No.
07	Discharge hose elbow	M.S.	01	No.
08	Siphon tube	M.S.	01	No.
09	Cap assembly(plunger)	Brass	01	No.
10	CO <sub>2</sub> Gas Cartridge (300 Gm)	Steel	01	No.
11	Discharge hose	Plastic	01	No.
12	Discharge nozzle	Aluminum	01	No.
13	Trolley Wheel	Rubber	02	No.
14	Cotter pin	M.S.	02	No.