



# **PRODUCT MANUAL**

## **FIRE EXTINGUISHER**

**Dry Chemical Powder  
25, 50 & 75 Kg Capacity**

**Kanadia Fyr Fyter Pvt Ltd  
Laxminagar, Ghatkopar (E), Mumbai -400 075**



## **[KANEX FIRE EXTINGUISHER]**

### **Dry Chemical Powder (Trolley Mounted)– 25, 50 & 75 Kg Capacity**

#### **INTRODUCTION**

This manual contains product description, installation, operating, maintenance, inspection and refilling for the KANEX brand Higher Capacity – Trolley mounted Dry Chemical Powder type Fire Extinguisher of capacity 25, 50 & 75 Kg by weight of powder. This model is designed to extinguish 'B' and 'C' type fires involving material like Petro Chemical products, Paints, Resins, Pigment, Varnish, Gases in the compressed form like Oxygen, Acetylene, LPG, CNG and Electrical as well as electronic equipments.

#### **PRODUCT DESCRIPTION**

- The principal advantage of KANEX Trolley mounted DCP (Dry Chemical Powder) type Fire Extinguisher is that the fire extinguisher is mobile type and it is a larger version of the portable DCP 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 as per standard given in IS 10658, is constructed by welding and the shape of the body is cylindrical. The dome ends of the body are dished outwards.
- The charge, Dry chemical powder of IS 4308 is an extinguishing media that gives blanketing effect on the fire to be put out. The powder is actuated by CO<sub>2</sub> gas contained in high pressure CO<sub>2</sub> cylinder of IS 7285.
- The discharge of the CO<sub>2</sub> gas is Valve controlled. The Valve is made of forged Brass material and of IS 3224:2002 having valve inlet and outlet to meet the cylinder neck threads. The valve is of Wheel type.
- The extinguisher is fitted with the safety valve in built with the cap as per requirement of IS 10658. The valve is set to release pressure of 20 Kg/cm<sup>2</sup>. The body, Cap and discharge connections are hydraulically tested taking into account the working applications of the same. A Dial type Pressure gauge is attached to the top dish of the body for inspecting the in built pressure during the inspection.
- The discharge connection is lever controlled for obtaining the satisfactory performance and suitability.



## 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.

- 1 Discharge Nozzle
- 2 Discharge Hose Pipe (length 3meter for 25 Kg capacity & 5 meter for 50 & 75 Kg capacity)
- 3 CO<sub>2</sub> connection pipe
- 4 CO<sub>2</sub> cylinder (Gas weight 1 Kg for 25 Kg capacity & 2 Kg for 50 & 75 Kg capacity)
- 5 Pressure Gauge
- 6 Pair of Wheel
- 7 Powder Bags (if Supplied separately)

To assemble the Fire Extinguisher,

- Provide the pair of wheel to the wheel carriage
- Connect Hose Pipe to the discharge end of the body placing washer between them
- The other side of hose pipe is connected with Discharge nozzle
- Attach the CO<sub>2</sub> cylinder to the provisions given on the shell in form of clamps.
- Connect high pressure connection pipe between CO<sub>2</sub> cylinder and main body, make sure the sealing washers are placed in the female nipples
- Open the Cap from top dish of the body, Fill rated capacity (25, 50 or 75 Kg) Dry Chemical powder into the body and refit the Cap ensuring extreme tightness.
- Connect the Pressure Gauge to the adaptor provided on the top dome
- Wind the Discharge hose on the clamps provided and put the nozzle into its resting clamp.

## 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 locking ring pin is pulled
- ✓ The operating wheel of valve is turned anti clock wise direction
- ✓ The Lever of Discharge nozzle is squeezed or valve is opened and
- ✓ The discharge should be directed at the base of the flames
- ✓ On fires involving electrical or electronics equipments, discharge should be directed at the source 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 Dry chemical powder 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 dry powder is by means of pressure produced from liquefied CO<sub>2</sub> gas from the gas cylinder.

The discharge time for higher capacity “KANEX” brand Trolley mounted Dry Chemical Powder type Fire Extinguisher for Capacity of 25, 50 & 75 Kg varies from 25 to 30, 40 to 50 & 50 to 60 seconds respectively. The discharge jet range of the discharge stream for Capacity of 25, 50 & 75 is 6m, 8m & 10 m respectively. The percentage discharge of the extinguishing media is more than 85 %.

## **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 AND MAINTENANCE:**

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> cylinder 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 cylinder, send the CO<sub>2</sub> cylinder 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 Parts**  
**[Dry Chemical Powder- Trolley mounted (Capacity 25 Kg)]**

INDEX	DESCRIPTION	MOC	QTY.	UNIT
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	Siphon tube (Inlet)	Al	01	No.
08	Siphon tube (outlet)	M.S.	01	No.
09	CO2 Connection Adopter	M.S.	02	No.
10	CO <sub>2</sub> trolley	M.S.	01	No.
11	CO <sub>2</sub> Gas cylinder (1 Kg)	Steel	01	No.
12	CO <sub>2</sub> Gas control valve	Brass	01	No.
13	Connecting hose for gas cylinder	Rubber	01	No.
14	Cotter pin	M.S.	02	No.
15	Trolley Wheel	Solid rubber	02	No
16	Powder	SBC/MAP/PBC	25	Kg

**Fire Extinguisher Parts**  
**[Dry Chemical Powder- Trolley mounted (Capacity 50 Kg)]**

INDEX	DESCRIPTION	MOC	QTY.	UNIT
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	Siphon tube (Inlet)	Al	01	No.
08	Siphon tube (outlet)	M.S.	01	No.
09	Pressure Gauge	Brass	01	No.
10	Pressure Gauge Adaptor	M.S	01	No.
11	CO2 Connection Adopter	M.S.	02	No.
12	Trolley	M.S.	01	No.
13	CO <sub>2</sub> Gas cylinder (2 Kg)	Steel	01	No.
14	CO <sub>2</sub> Gas control valve	Brass	01	No.
15	Connecting hose for gas cylinder	Rubber	01	No.
16	Cotter pin	M.S.	02	No.
17	Trolley Wheel	Solid rubber	02	No
18	Powder	SBC/MAP/PBC	50	Kg



**Fire Extinguisher Parts**  
**[Dry Chemical Powder- Trolley mounted (Capacity 75 Kg)]**

<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	Siphon tube (Inlet)	Al	01	No.
08	Siphon tube (outlet)	M.S.	01	No.
09	Pressure Gauge	Brass	01	No.
10	Pressure Gauge Adaptor	M.S	01	No.
11	CO2 Connection Adapter	M.S.	02	No.
12	Trolley	M.S.	01	No.
13	CO <sub>2</sub> Gas cylinder (2 Kg)	Steel	01	No.
14	CO <sub>2</sub> Gas control valve	Brass	01	No.
15	Connecting hose for gas cylinder	Rubber	01	No.
16	Cotter pin	M.S.	02	No.
17	Trolley Wheel	Solid rubber	02	No
18	Powder	SBC/MAP/PBC	75	Kg