

# UL Listed 25 Bar FK 1230 (FK-5-1-12) Clean Agent System

## Fire Suppression System

### General Information

FK 1230 (FK-5-1-12) Clean agent system are employed to protect critical installations formerly protected by Halon 1301.

### These include :-

- Data Processing Centers
- Telephone Switches
- Process Control Rooms
- Art and Historical Collections
- Archive & Museums
- Marine, Oil & Gas
- Aerospace, Aviation & Military

### FK 1230 (FK-5-1-12) Fire Suppression Agent

#### Part Number – H2-120-000

FK 1230 (FK-5-1-12) agent complies with NFPA Standard 2001 : standard for Clean Agent fire Extinguishing systems, EPA SNAP Program (Significant New Alternate Policy)

These agents are classified as suitable for use in occupied areas and are considered to have no ozone depleting potential (ODP)

FK 1230 (FK-5-1-12) fire suppressant can be safely used where people are present.

### DESCRIPTION

FK 1230 (FK-5-1-12) systems reach extinguishing levels in 10 seconds or less, stopping ordinary combustible, electrical, and flammable liquid fires before they cause significant damage. That's the fastest fire protection available, period. When fire is extinguished this quickly, it means less damage, lower repair costs, and an extra margin of safety for people. It also means less downtime and disruption of business.

### PHYSICAL & CHEMICAL PROPERTIES

Empirical formulae..... $CF_3CF_2C(O)CF_3$ <sub>2</sub>  
 IUPAC Designation .....Dodecafluoro-2-methylpentan-3-one  
 ASHRAE Designation.....FK-5-1-12  
 Molecular Weight.....316.04  
 Boiling Point at 1 Atm.....49.2 °C (120.6 °F)  
 Freezing Point.....-108.0°C (-162.4°F)  
 Ozone Depletion Potential.....0  
 Atmospheric Lifetime.....5 days  
 No Observed Adverse Effect Level..... 10 %  
 Lowest Observed Adverse.....>10%



AGENT	CLASS A MEC	CLASS A DESIGN	CLASS B MEC	CLASS B DESIGN	CLASS C DESIGN
FK-5-1-12	3.3	4.0	4.5	5.9	4.5
NFPA 2001 REQUIREMENTS FOR MINIMUM VALUES					

### CLASS B CONCENTRATION

FLAMMABLE LIQUID	DESIGN CONCENTRATION (VOL.%)
ACETONE	5.59
ETHANOL	7.15
N-HEPTANE	5.85
TRANSFORMER OIL	5.85
DIESEL FUEL	4.42
JP4	9.0
PRRROLIDINE	6.11

### ENVIRONMENTALLY FRIENDLY

DESCRIPTION	FK-5-1-12 (FK 1230)
OZONE DEPLETION POTENTIAL	0.0
GLOBAL WARMING POTENTIAL	1
ATMOSPHERIC LIFETIME (YEARS)	5 DAYS
SNAP (YES/NO)	YES

## 34, 80, 120 & 140 liter Capacity Seamless Cylinder - Standard Unit

PESO Approved Seamless cylinder of FK-1-5-12 Clean Agent System are used with 25 Bar (360 PSI) system.

SEAMLESS CYLINDER DATA - STANDARD UNIT					
PART NUMBER	CAPACITY	VALVE (NB)	AGENT FILL RANGE (KG.)	HEIGHT (MM)	DIAMETER (MM)
H2-25-34-000	34 L	1-1/2" (40NB)	16.4 TO 38.1	1118	Ø 232
H2-25-80-000	80 L	2" (50NB)	38.5 TO 89.7	1842	Ø 267
H2-25-120-000	120 L	2" (50NB)	57.7 TO 134.6	1642	Ø 356
H2-25-140-000	140 L	2" (50NB)	67.3 TO 157.0	1867	Ø 356

### Storage Temperature :-

FK 1230 (FK-5-1-12) is stored in cylinder as liquid, superpressurized with dry nitrogen to 25 bar at 21°C (360 PSIG at 70 °F)

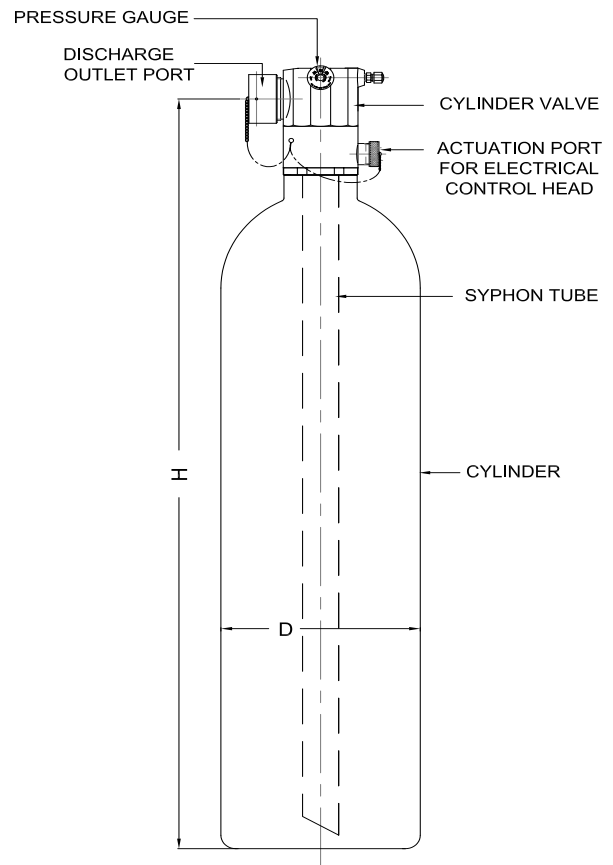
### Materials :-

Valve Body: Brass

Cylinder: Seamless type, manufactured and tested in accordance with IS 7285 Standard and approved by PESO for their use

### Notes :-

- Clean Agent Cylinder must be installed in vertical position only.
- Do not cover remove or deface caution label



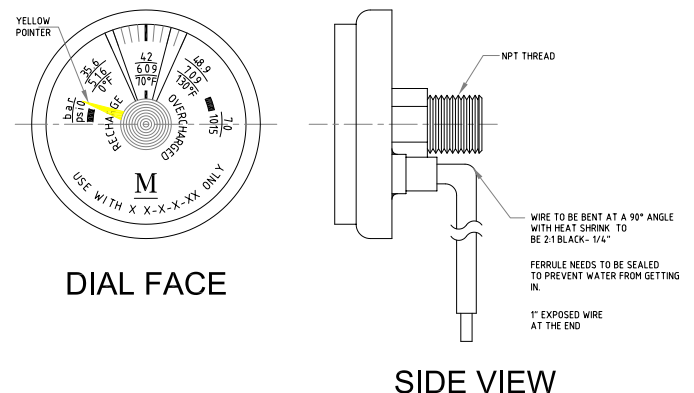
## 34, 80, 120 & 140 liter Capacity Seamless Cylinder With Switch-in-Gauge Unit

The seamless cylinder is PESO approved for 25 Bar (360 PSI) system are used with FK 1230 (FK-5-1-12) clean agent. It is also equipped with Switch-in-Gauge unit, design to monitor health of cylinder pressure.

This 2 in 1 unit offers unique facility whereas we can monitor cylinder pressure locally and healthiness of cylinder can be monitor remotely via using Fire Alarm Panel interface unit or any other control panel.

For ordering purpose please refer part number given below. This switch will come as a package along with Cylinder Valve Assembly.

SEAMLESS CYLINDER DATA - SWITCH-IN-GAUGE UNIT					
PART NUMBER	CAPACITY	VALVE (NB)	AGENT FILL RANGE (KG.)	HEIGHT (MM)	DIAMETER (MM)
H2-25-34-002	34 L	1-1/2" (40NB)	16.4 TO 38.1	1118	Ø 232
H2-25-80-002	80 L	2" (50NB)	38.5 TO 89.7	1842	Ø 267
H2-25-120-002	120 L	2" (50NB)	57.7 TO 134.6	1642	Ø 356
H2-25-140-002	140 L	2" (50NB)	67.3 TO 157.0	1867	Ø 356



## 1-1/2" & 2" Flexible Discharge Hose

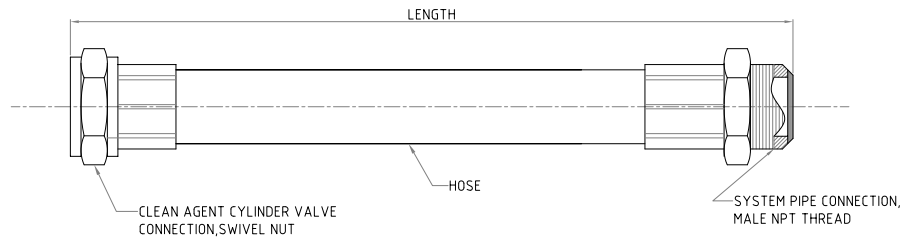
Flexible discharge hose is used to connect cylinder valve to the pipeline or the manifold of the manifold check valve.

Technical Data :-

Hose MOC : Reinforce Rubber Hose

Fitting MOC : Carbon Steel

Working Pressure : 1-1/2" (1305 PSIG) &  
: 2" (1160 PSIG)



### DISCHARGE HOSE DATA FOR IS SEAMLESS CYLINDER

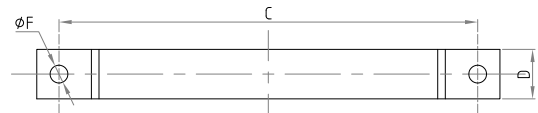
PART NUMBER	HOSE SIZE	USE WITH CYLINDER CAPACITY	LENGTH	MINIMUM BENDING RADIUS
H4-001-000	Ø 1-1/2" (40NB)	34 L (USE WITH 40NB CYLINDER VALVE)	23"	10.5"
H4-002-000	Ø 2" (50NB)	80, 120 & 140 L (USE WITH 50NB CYLINDER VALVE)	29"	13.5"

## Cylinder Mounting Strap

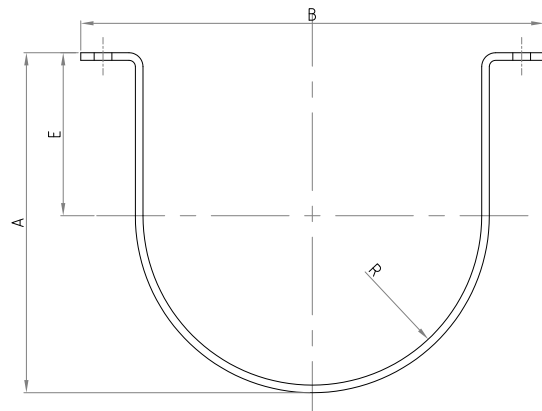
Cylinder straps are used to mount the clean agent cylinders in vertical position.

### Technical Data :-

Body : Mild Steel.



PLAN



ELEVATION

### ORDERING INFORMATION

PART NUMBER	CYL. SIZE	A	B	C	D	E	F	R
		MM	MM	MM	MM	MM	MM	MM
H4-011-000	34 L	233	330	295	39	111	Ø14	116
H4-012-000	80 L	268	365	330	39	128	Ø14	133
H4-013-000	120 & 140 L	357	454	419	39	173	Ø14	178

## Electric Cum Manual Actuator (Electric Control Head)

### Part Number – H4-031-000

The Electric control heads is an electromechanical device mounted on the master cylinder actuation port. On receiving an 24 VDC signal from the fire alarm panel or other similar source. The Electric control head gets actuated and triggers the master cylinder actuation port. It also houses a manual release plunger which can be used to manually trigger the cylinder actuation port.

The actuator also has an feature of supervisory switch. The switch is integrated such a way in electric control head. That it will give signal to releasing control panel to indicate that the electric control head is removed from master cylinder actuation port.