



Manufacturing Fire Protection Equipment

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Appendix of Products



SFS-200

FIRE SUPPRESSION SYSTEM

HFC-227EA (FM-200)



SYSTEM COMPONENTS INCLUDE

Fire Alarm System

- Fire Alarm Control Panel
- Automatic Fire Detection
- Manual Release
- Abort Switch
- Fire Alarm Bell
- Fire Strobe Light
- Fire Alarm Sounder with Strobe
- Evacuate sign

Fire Fighting System:

- Cylinder Fire Suppression
- Flexible Discharge Hose
- Pressure Gauge
- Solenoid Cutter
- Selector valve
- Safety Valve
- Pressure-Operated and Manual Release Valve
- Check Valve
- Actuator cabinet
- Discharge nozzle 360°/180°
- Copper pipe



CHARGING RANGE

Cylinder Type	Minimum (kg)	Maximum (kg)	Working Pressure
40L	16	42	25 bar/ 42 bar/ 50 bar
82.5L	33	86	25 bar/ 42 bar/ 50 bar
140L	56	147	25 bar/ 42 bar/ 50 bar
180L	72	189	25 bar/ 42 bar/ 50 bar
220L	88	231	25 bar/ 42 bar/ 50 bar

KEY FEATURES

- HFC-227ea (FM-200) Fire Suppression Agent
- HFC-227ea (FM-200) is a colorless, virtually odorless, and non-conductive.
- Provides rapid fire suppression—extinguishes fires in ≤ 10 s
- Clean agent: leaves no dust, residue, or moisture—doesn't damage electronic equipment.
- Safe for humans—suitable for occupied areas.
- Environmentally friendly – ODP = 0
- Effective for various fire classes: Class A, Class B and Class C.
- Space-saving storage solution.
- Rechargeable after discharge and easy to maintain.

APPLICATIONS

Suitable for enclosed spaces where an automatic fire suppression system is required, and where water or foam-based agents aren't applicable.

- Office buildings, high-rise apartments, shopping malls
- Data centers, server rooms
- Medical facilities, hospitals, rooms containing high-value equipment
- Telecommunication hubs, BTS stations, broadcast stations
- Airport terminals, air traffic control towers
- Electronic component manufacturing plants
- Automated factories, control system production lines
- Petrochemical plants, paint booths, chemical factories
- Document storage rooms, file archives, data storage rooms
- Military warehouses, armories, national defense supply depots
- Security and military command centers
- Solar power plants, hydroelectric power stations

INSTALLATION

The container is installed in a vertical position with the valve assembly pointing up. The cylinder can be connoted to cylinders manifold or discharge piping system via a DN40/DN50 flexible discharge hose and check valve (P/N SFS-FC40/ SFS-FC50) or via a suitable pressure rated thread style fitting.

The container is secured in place by two set of cylinder clamp (P/N SFS-CC8X/ SFS-CC140/ SFS-CC180), which must be fixed to a solid wall or strut assembly.

An optional pressure gauge with switch for cylinder pressure supervisory (P/N SFS-PG42S) can be ordered separately.

GENERAL INFORMATION

Extinguishing Agent: HFC-227ea (FM-200)

Cylinder Capacities: 40L, 82.5L, 140L, 180L, 220L

Working Pressure: 25 bar / 42 bar / 50 bar

Calculation Software: Certified by VdS/KFI

HFC-227ea (FM-200) Fire Suppression Agent:

UL Listed (EX 28624) / FM Approved (FM23FPUS0263)

Quality Certifications: BS EN ISO 9001:2015 (UKAS),

BS EN ISO 14001:2015, ISO 45001:2018

Operating Principle:

HFC-227ea (FM-200) works by absorbing heat and interrupting the chemical reaction of the fire. When discharged, HFC-227ea (FM-200) rapidly absorbs heat from the flame, quickly lowering the temperature and extinguishing the fire. Notably, HFC-227ea (FM-200) is non-conductive and leaves no residue after discharge, ensuring that electronic equipment remains unaffected.

TECHNICAL SPECIFICATIONS OF THE CYLINDER

Part Number	SFS-C220	SFS-180	SFS-C140	SFS-C82.5	SFS-C40
Fill Range HFC-227ea (FM-200)	88kg - 231kg (194lbs - 509 lbs)	72kg - 189kg (159lbs - 417lbs)	56kg - 147kg (159lbs - 417lbs)	33kg - 86kg (159lbs - 190lbs)	16kg - 42kg (35lbs - 93lbs)
Heigh (± 20mm)	2090 mm	1750 mm	1405 mm	1850 mm	985 mm
Diameter (± 1%)	406 mm			267 mm	
Internal Volume	220 liter	180 liter	140 liter	82.5 liter	40 liter
Working pressure	25 bar/ 42 bar/ 50 bar				
Empty Cylinder Weight (± 5%)	215 kg	175 kg	144 kg	92 kg	53 kg
Cylinder Material	34CrMo4 Steel				
Cylinder Paint Color	RED RAL 3000				
Cylinder max filling pressure	200 bar				
Cylinder tested pressure	300 bar				
Cylinder burst test pressure min	480 bar				
Cylinder specification	ISO 9809-1, TPED, PI				
Cylinder valve max filling pressure	147 bar (2132 psi)				
Cylinder valve tested pressure	245 bar (3553 psi)				
Cylinder valve body material	Nickel plated brass				
Working temperature range	0°C to 54°C				

INSPECTION AND MAINTENANCE

According to ISO/TCVN standards, the following inspection and/or maintenance procedure must be scheduled as listed below and performed upon the occurrence of any event which might affect the reliability of the system.

SEMI-ANNUAL INSPECTION

1. Check the pressure gauges of each agent storage container. If the pressure gauge indicates a loss in pressure of 10% or more, or loss of agent in quantity of more than 5 %, then it shall be recharged or replaced. Pressure varies with temperature, and this must be taken into account when checking the pressure gauge. In the range of 20°C to 40°C the change is approximately 0.33 bar per degree C.
2. Check all components, including supporting hardware, and tighten, repair or replace as required.
3. Replace any component if at all in doubt of its ability to perform properly

ANNUAL INSPECTION

1. Check the pressure gauges of each agent storage container. If the pressure gauge indicates a loss in pressure of 10% or more, or loss of agent in quantity of more than 5 %, then it shall be recharged or replaced. Pressure varies with temperature, and this must be taken into account when checking the pressure gauge. In the range of 20°C to 40°C the change is approximately 0.33 bar per degree C.
2. Check all components, including supporting hardware, and tighten, repair or replace as required.
3. Replace any component if at all in doubt of its ability to perform properly.
4. Inspect all piping, fittings and nozzles for looseness, dirt or other damage. All outlet piping must be clean and free of dirt, chips, fillings and other foreign material that may cause the system to become inoperative or ineffective at the time of discharge.

SNS-100

FIRE SUPPRESSION SYSTEM

IG-100 (N₂)



SYSTEM COMPONENTS INCLUDE

Fire Alarm System

- Fire Alarm Control Panel
- Automatic Fire Detection
- Manual Release
- Abort Switch
- Fire Alarm Bell
- Fire Strobe Light
- Fire Alarm Sounder with Strobe
- Evacuate sign

Fire Fighting System:

- Cylinder Fire Suppression
- Flexible Discharge Hose
- Pressure Gauge
- Solenoid Cutter
- Selector valve
- Safety Valve
- Pressure-Operated and Manual Release Valve
- Check Valve
- Actuator cabinet
- Discharge nozzle 360°/180°
- Copper pipe



CHARGING RANGE

P/N	Working pressure	Internal volume	Fill Amount IG-100 (N ₂)	
SNS-84-200	200 bar	84 liter	16.10 m3	18.76 kg
SNS-84-280	280 bar	84 liter	21.13 m3	24.62 kg
SNS-84-300	300 bar	84 liter	22.24 m3	25.91 kg
SNS-140-200	200 bar	140 liter	26.74 m3	31.16 kg
SNS-140-300	300 bar	140 liter	37.06 m3	43.18 kg

KEY FEATURES

- IG-100 is an inert gas (Nitrogen – N₂), naturally present in the atmosphere. It is colorless, odorless, and non-conductive.
- Leaves no residue after discharge, causes no damage to electronic equipment or data.
- Safe for human occupancy – suitable for use in occupied spaces.
- Environmentally friendly – ODP = 0
- Free refilling service when using products by S-TEC VINA.
- Suitable for a wide range of fires: Class A, Class B and Class C
- Long lifespan – non-degradable and doesn't require replacement over time like certain chemical agents.

APPLICATIONS

Suitable for enclosed spaces where an automatic fire suppression system is required, and where water or foam-based agents aren't applicable.

- Office buildings, high-rise residential buildings, shopping malls
- Data centers
- Medical facilities, hospitals, MRI equipment rooms
- Telecommunication centers, BTS stations, broadcasting stations
- Airport terminals, air traffic control centers
- Electronic component manufacturing plants
- Automated factories, control system production lines
- Museums, libraries, archives, file and data storage rooms
- Military warehouses, armories, national defense supply depots
- Security and military command centers
- Energy facilities (solar power plants, hydroelectric power stations, etc.)

INSTALLATION

The container is installed in a vertical or horizontal position. N₂ cylinder connect to cylinder manifold by DN20 flexible discharge hose included with check valve (P/N SNS-FC20), the pilot actuation line between cylinder using flexible discharge hose DN8 (P/N SNS-FA300/SNS-FA600/SNS-FA900)The container is secured in place by two set of cylinder clamp (P/N SNS-CC-84), which must be fixed to a solid wall or strut assembly

GENERAL INFORMATION

Extinguishing Agent: IG-100 (N₂)

Cylinder capacity: 84L – 140L
Cylinder pressure: 200 bar / 280 bar / 300 bar
Cylinder valve with built-in pressure reducer; discharge pressure: 60–80 bar
Design and calculation software certified by VdS / KFI
Quality certified to BS EN ISO 9001:2015 (UKAS), BS EN ISO 14001:2015, ISO 45001:2018
S-TEC VINA is the only unit in Vietnam capable of charging up to 350 bar

Operating Principle:

Upon fire detection, the system releases IG-100 (N₂) gas to suppress the fire by reducing oxygen concentration to 12–14%—sufficient to stop combustion while remaining safe for humans. As an inert gas, IG-100 is non-conductive, leaves no residue, and causes no damage to equipment after discharge.

TECHNICAL SPECIFICATIONS OF THE CYLINDER

Part Number	SNS-84-200	SNS-84-280	SNS-84-300	SNS-140-200	SNS-140-300
Working pressure	200 bar	280 bar	300 bar	200 bar	300 bar
Filled Weight (±5%)	128 kg	133 kg	134 kg	247 kg	
IG-100 Charging Volume	16.10 m3	21.13 m3	22.24 m3	26.74 m3	37.06 m3
Charging Weight	18.76 kg	24.62 kg	25.91 kg	31.16 kg	43.18 kg
Internal volume	84 liter			140 liter	
Regulated discharge pressure	60 to 80 bar				
Height (±20mm)	1897 mm			1438 mm	
Diameter	267 mm			406 mm	
Empty weight (±5%)	109 kg			204 kg	
Cylinder material	34CrMo4				
Cylinder wall thickness	Min 7.6 mm			Min 11.2 mm	
Cylinder tested pressure	450 bar				
Cylinder burst pressure tested	>720 bar				
Cylinder specification	Pi ISO 9809-2/TPED				
Cylinder material	Copper alloy C3771E				
Cylinder valve tested pressure	495 bar				
Safety Disc Bursting range	387 to 396 bar				
Cylinder discharge pressure	60 bar to 80 bar				
Working temperature range	-20 °C to 50 °C				

INSPECTION AND MAINTENANCE

According to ISO/TCVN standards, the following inspection and/or maintenance procedure must be scheduled as listed below and performed upon the occurrence of any event which might affect the reliability of the system.

SEMI-ANNUAL INSPECTION

1. Check the pressure gauges of each agent storage container. If the pressure gauge indicates a loss in pressure more than 5%, then it shall be recharged or replaced. Pressure varies with temperature, and this must be taken into account when checking the pressure gauge.
2. Check all components, including supporting hardware, and tighten, repair or replace as required.
3. Replace any component if at all in doubt of its ability to perform properly.
4. Inspect all piping, fittings and nozzles for looseness, dirt or other damage. All outlet piping must be clean and free of dirt, chips, fillings and other foreign material that may cause the system to become inoperative or ineffective at the time of discharge

ANNUAL INSPECTION

At least annually, or more frequently as required by the authority, all systems shall be thoroughly inspected and tested for proper operation by competent personnel.

Container

Containers shall be subjected to periodical tests as required by the relevant national standard.

Hose

All system hoses shall be examined annually for damage. If visual examination shows any defect, the hose shall be replaced.

Enclosures

At least every 12 months it shall be determined whether boundary penetration or other changes to the protected enclosure have occurred that could affect leakage and extinguishant performance. If this cannot be visually determined, it shall be positively established by repeating the test for enclosure integrity in accordance with ISO14520 /TCVN7161-1 annex E.

SFS-1230

FIRE SUPPRESSION SYSTEM

FK 5-1-12 (NOVEC 1230™)



SYSTEM COMPONENTS INCLUDE

Fire Alarm System

- Fire Alarm Control Panel
- Automatic Fire Detection
- Manual Release
- Abort Switch
- Fire Alarm Bell
- Fire Strobe Light
- Fire Alarm Sounder with Strobe
- Evacuate sign

Fire Fighting System:

- Cylinder Fire Suppression
- Flexible Discharge Hose
- Pressure Gauge
- Solenoid Cutter
- Selector valve
- Safety Valve
- Pressure-Operated and Manual Release Valve
- Check Valve
- Actuator cabinet
- Discharge nozzle 360°/180°
- Copper pipe



CHARGING RANGE

Cylinder Type	Min	Max	Working Pressure
40L	16 kg	48 kg	25 bar/ 42 bar/ 50 bar
82.5L	33 kg	96 kg	25 bar/ 42 bar/ 50 bar
140L	56 kg	168 kg	25 bar/ 42 bar/ 50 bar
180L	72 kg	216 kg	25 bar/ 42 bar/ 50 bar
220L	88 kg	264 kg	25 bar/ 42 bar/ 50 bar

KEY FEATURES

FK-5-1-12 (Novec 1230™) Fire Suppression Agent

- Colorless, virtually odorless, and non-conductive
- Rapid fire suppression – extinguishes fires in ≤ 10 seconds
- Clean agent – leaves no dust, residue, or moisture; safe for electronics
- Safe for human occupancy – suitable for use in occupied areas
- Environmentally friendly – ODP = 0 (no ozone depletion)
- Effective on Class A (solids), B (liquids), and C (gases) fires
- Space-saving storage
- Rechargeable after discharge and easy to maintain

APPLICATIONS

Suitable for enclosed spaces where an automatic fire suppression system is required, and where water or foam-based agents are't applicable.

- Office buildings, high-rise residential buildings, shopping malls
- Data centers, server rooms
- Medical facilities, hospitals, MRI equipment rooms
- Telecommunication hubs, BTS stations, broadcasting centers
- Airport terminals, air traffic control rooms, security rooms
- Electronic component manufacturing plants, electrical rooms
- Automated factories, control system areas
- Petrochemical plants, paint booths, chemical factories
- Document and file storage rooms, museums, libraries
- Military warehouses, armories, defense equipment depots
- Security and military command centers
- Solar and hydroelectric power facilities

INSTALLATION

The container is installed in a vertical position with the valve assembly pointing up. The cylinder can be connoted to cylinders manifold or discharge piping system via a DN40/DN50 flexible discharge hose and check valve (P/N SFS-FC40/ SFS-FC50) or via a suitable pressure rated thread style fitting.

The container is secured in place by two set of cylinder clamp (P/N SFS-CC8X/ SFS-CC140/ SFS-CC180), which must be fixed to a solid wall or strut assembly.

An optional pressure gauge with switch for cylinder pressure supervisory (P/N SFS-PG42S) can be ordered separately.

GENERAL INFORMATION

Extinguishing Agent: FK-5-1-12 (Novec 1230™)

Cylinder capacities: 40L, 82.5L, 140L, 180L, 220L

Cylinder pressure: 25 bar / 42 bar / 50 bar

Design and calculation software certified by VdS / KFI

FK-5-1-12 (Novec 1230™) fire suppression agent is UL Listed and FM Approved

Quality management system certified to BS EN ISO 9001:2015 (UKAS), BS EN ISO 14001:2015, ISO 45001:2018

Operating Principle:

FK-5-1-12 (Novec 1230™) suppresses fires by rapidly absorbing heat. When discharged into the protected area, it lowers the flame temperature, interrupting the combustion process. Unlike some agents, FK-5-1-12 (Novec 1230™) does not reduce oxygen levels, making it safe for use in occupied spaces. As an environmentally friendly solution with zero ozone depletion potential (ODP = 0), it is widely recognized as a modern and sustainable choice for advanced fire suppression systems.

TECHNICAL SPECIFICATIONS OF THE CYLINDER

Part Number	SFS-C220	SFS-180	SFS-C140	SFS-C82.5	SFS-C40
Fill Range FK 5-1-12 (NOVEC 1230™)	88kg - 264kg (194lbs - 582lbs)	72kg - 216kg (159lbs - 476lbs)	56kg - 168kg (123lbs - 370lbs)	33kg - 99kg (73lbs - 218lbs)	16kg - 48kg (35lbs - 106lbs)
Heigh (± 20mm)	2090 mm	1750 mm	1405 mm	1850 mm	985 mm
Diameter (± 1%)	406 mm			267 mm	
Internal Volume	220 liter	180 liter	140 liter	82.5 liter	40 liter
Working pressure	25 bar/ 42 bar/ 50 bar				
Empty Cylinder Weight (± 5%)	215 kg	175 kg	144 kg	92 kg	53 kg
Cylinder Material	34CrMo4 Steel				
Cylinder Paint Color	RED RAL 3000				
Cylinder max filling pressure	200 bar				
Cylinder tested pressure	300 bar				
Cylinder burst test pressure min	480 bar				
Cylinder specification	ISO 9809-1, TPED, PI				
Cylinder valve max filling pressure	147 bar (2132 psi)				
Cylinder valve tested pressure	245 bar (3553 psi)				
Cylinder valve body material	Nickel plated brass				
Working temperature range	0°C to 54°C				

INSPECTION AND MAINTENANCE

According to ISO/TCVN standards, the following inspection and/or maintenance procedure must be scheduled as listed below and performed upon the occurrence of any event which might affect the reliability of the system.

SEMI-ANNUAL INSPECTION

1. Check the pressure gauges of each agent storage container. If the pressure gauge indicates a loss in pressure of 10% or more, or loss of agent in quantity of more than 5 %, then it shall be recharged or replaced. Pressure varies with temperature, and this must be taken into account when checking the pressure gauge. In the range of 20°C to 40°C the change is approximately 0.33 bar per degree C.
2. Check all components, including supporting hardware, and tighten, repair or replace as required.
3. Replace any component if at all in doubt of its ability to perform properly

ANNUAL INSPECTION

1. Check the pressure gauges of each agent storage container. If the pressure gauge indicates a loss in pressure of 10% or more, or loss of agent in quantity of more than 5 %, then it shall be recharged or replaced. Pressure varies with temperature, and this must be taken into account when checking the pressure gauge. In the range of 20°C to 40°C the change is approximately 0.33 bar per degree C.
2. Check all components, including supporting hardware, and tighten, repair or replace as required.
3. Replace any component if at all in doubt of its ability to perform properly.
4. Inspect all piping, fittings and nozzles for looseness, dirt or other damage. All outlet piping must be clean and free of dirt, chips, fillings and other foreign material that may cause the system to become inoperative or ineffective at the time of discharge.

HPCO2

FIRE SUPPRESSION SYSTEM

CARBON DIOXIDE (CO₂)



SYSTEM COMPONENTS INCLUDE

Fire Alarm System

- Fire Alarm Control Panel
 - Automatic Fire Detection
 - Manual Release
 - Abort Switch
- Fire Alarm Bell
 - Fire Strobe Light
 - Fire Alarm Sounder with Strobe
 - Evacuate sign

Fire Fighting System:

- Cylinder Fire Suppression
 - Flexible Discharge Hose
 - Pressure Gauge
 - Solenoid Cutter
 - Selector valve
 - Safety Valve
- Pressure-Operated and Manual Release Valve
 - Check Valve
 - Actuator cabinet
 - Discharge nozzle 360°/180°
 - Copper pipe



KEY FEATURES

- Low cost
- Non-conductive
- Colorless, odorless, and electrically non-conductive
- Leaves no residue after discharge; non-corrosive
- Zero Ozone Depletion Potential (ODP)
- No greenhouse effect or global warming impact
- No decomposition by-products
- No fogging and no loss of visibility during discharge

APPLICATIONS

Suitable for normally unoccupied spaces where water- or foam-based suppression systems are not applicable.

- Control rooms in automated factories
- Machine rooms in petrochemical plants
- Armories, military supply depots, explosive storage areas
- Small data centers with limited human occupancy
- Power stations, transformer rooms
- Unmanned control system facilities
- Data processing and control centers
- Transformer rooms, electrical rooms, generator rooms
- Telecommunication equipment facilities
- Document and archive storage rooms
- Flammable liquid storage areas, paint booths
- Medical facilities, high-value industrial equipment zones
- Libraries, museums, and art galleries

CHARGING RANGE

Part Number	SHC-68L
Carbon Dioxide (CO ₂) filled	45 kg
Cylinder working pressure	150 bar
Cylinder tested pressure	250 bar

INSTALLATION

The cylinder is installed in a vertical position. CO₂ cylinders connect to cylinder manifold by DN15 flexible discharge hose included with check valve (P/N SHCFC20), the pilot actuation line between cylinder using cooper tube DN6. The cylinder is secured in place by two set of cylinder clamp (P/N STV-CC267), which must be fixed to a solid wall or strut assembly.

GENERAL INFORMATION

Extinguishing Agent: Carbon Dioxide (CO₂)
Cylinder capacity: 68L, containing 45kg of CO₂ extinguishing agent
Design calculation software certified by VdS / KFI
The cylinder is equipped with a valve head, which includes an integrated safety relief valve for pressure discharge

Operating Principle:
The CO₂ fire suppression system operates by reducing oxygen concentration and rapidly cooling the fire area. Upon discharge, CO₂ is released as a cold gas that blankets the protected zone, cutting off the oxygen supply needed for combustion. Its non-conductive nature and clean discharge with no residue, CO₂ is highly effective in suppressing fires involving electronic equipment, enclosed spaces, and storage areas—without causing damage to sensitive devices.

TECHNICAL SPECIFICATIONS OF THE CYLINDER

Part Number	SHC-68L
Carbon Dioxide (CO ₂) filled	45 kg
Height (±20mm)	1500 mm
Diameter (±1%)	267 mm
Cylinder volume	68 Liter
Empty cylinder weight (±5%)	75 kg
Cylinder material	37Mn Steel
Painted color	Red (RAL3000)
Cylinder working pressure	150 bar
Cylinder tested pressure	250 bar
Working temperature range	-20°C to 54°C
Cylinder standard	ISO 9809-1



INSPECTION AND MAINTENANCE

According to ISO/TCVN standards, the following inspection and/or maintenance procedure must be scheduled as listed below and performed upon the occurrence of any event which might affect the reliability of the system.

SEMI-ANNUAL INSPECTION

1. Check the pressure gauges of each agent storage container. If the pressure gauge indicates a loss in pressure more than 5%, then it shall be recharged or replaced. Pressure varies with temperature, and this must be taken into account when checking the pressure gauge.
2. Check all components, including supporting hardware, and tighten, repair or replace as required.
3. Replace any component if at all in doubt of its ability to perform properly.
4. Inspect all piping, fittings and nozzles for looseness, dirt or other damage. All outlet piping must be clean and free of dirt, chips, fillings and other foreign material that may cause the system to become inoperative or ineffective at the time of discharge.

ANNUAL INSPECTION

At least annually, or more frequently as required by the authority, all systems shall be thoroughly inspected and tested for proper operation by competent personnel.

Container

Containers shall be subjected to periodical tests as required by the relevant national standard.

Hose

All system hoses shall be examined annually for damage. If visual examination shows any defect, the hose shall be replaced.

Enclosures

At least every 12 months it shall be determined whether boundary penetration or other changes to the protected enclosure have occurred that could affect leakage and extinguishant performance.



SMS-227EA/SMS-1230

SYSTEM USING SELF-ACTUATED CYLINDERS

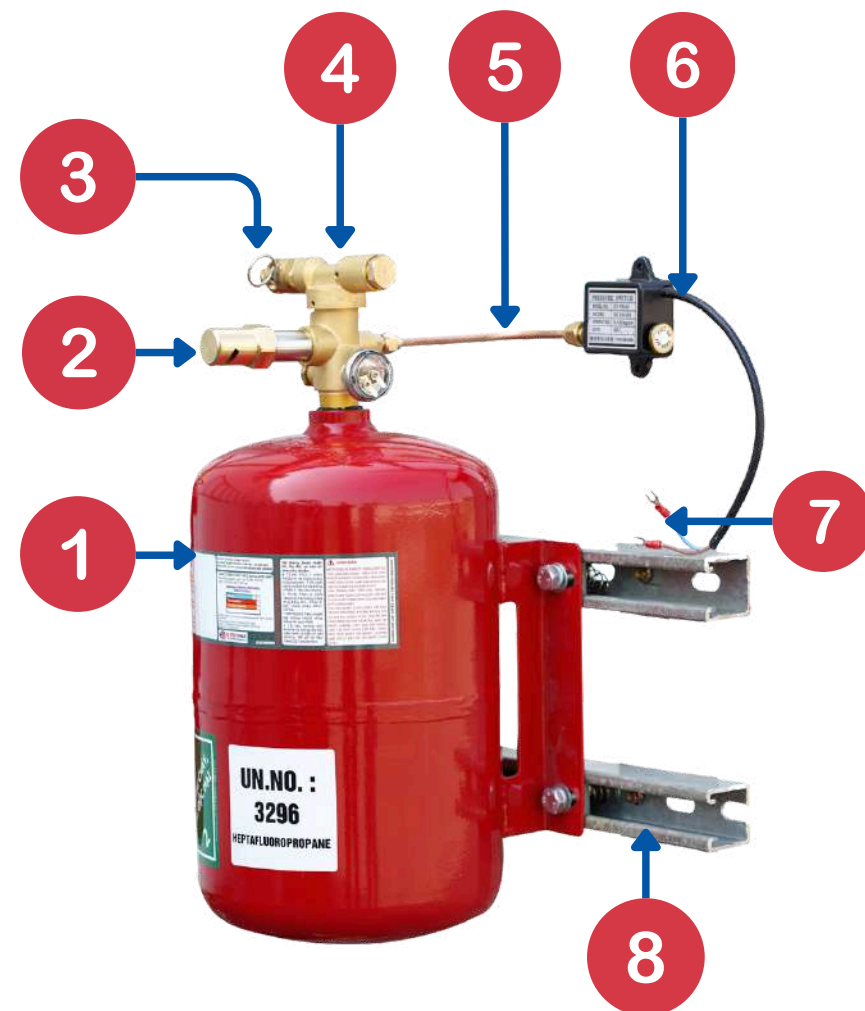
HFC-227EA (FM-200)/FK 5-1-12 (NOVEC 1230™)



SYSTEM COMPONENTS INCLUDE

System schematic diagram 1 cylinder

1. Automatic fire extinguisher
2. Discharge nozzle
3. Heat sensor glass bulb - Quick response type
4. Pressure gauge with contact
5. Cooper tube
6. Discharge pressure switch
7. Connect to fire alarm system:
+ Signal of monitoring pressure of cylinder
+ Signal of monitoring the discharge
8. Bracket



System with 2 or more cylinders

1. Automatic fire extinguisher
2. Discharge nozzle
3. Heat sensor glass bulb - Quick response type
4. Pressure gauge with contact
5. Cooper tube
6. Discharge pressure switch
7. Connect to fire alarm system:
+ Signal of monitoring pressure of cylinder
+ Signal of monitoring the discharge
8. Bracket



KEY FEATURES

- Compact cylinder size, easy installation, simple system configuration
- Fast suppression speed with high extinguishing efficiency
- Low extinguishing concentration (8–10%)
- Rapid discharge: fully discharged within 8–10 seconds, quickly suppressing the fire
- No significant reduction in oxygen concentration
- Clean agent – leaves no residue after discharge
- Zero Ozone Depletion Potential (ODP = 0)
- Electrically non-conductive
- Safe for use in occupied areas
- Available in various cylinder sizes, nozzles, and accessories

APPLICATIONS

Designed for small, isolated areas requiring automatic fire suppression.

- Data processing and control rooms
- Transformer rooms, electrical rooms, generator rooms
- Telecommunication equipment, archive storage areas
- Cable tunnels, flammable liquid storage areas, paint booths
- Medical facilities, MRI equipment rooms
- High-value industrial equipment
- Libraries, museums, art galleries

CHARGING RANGE

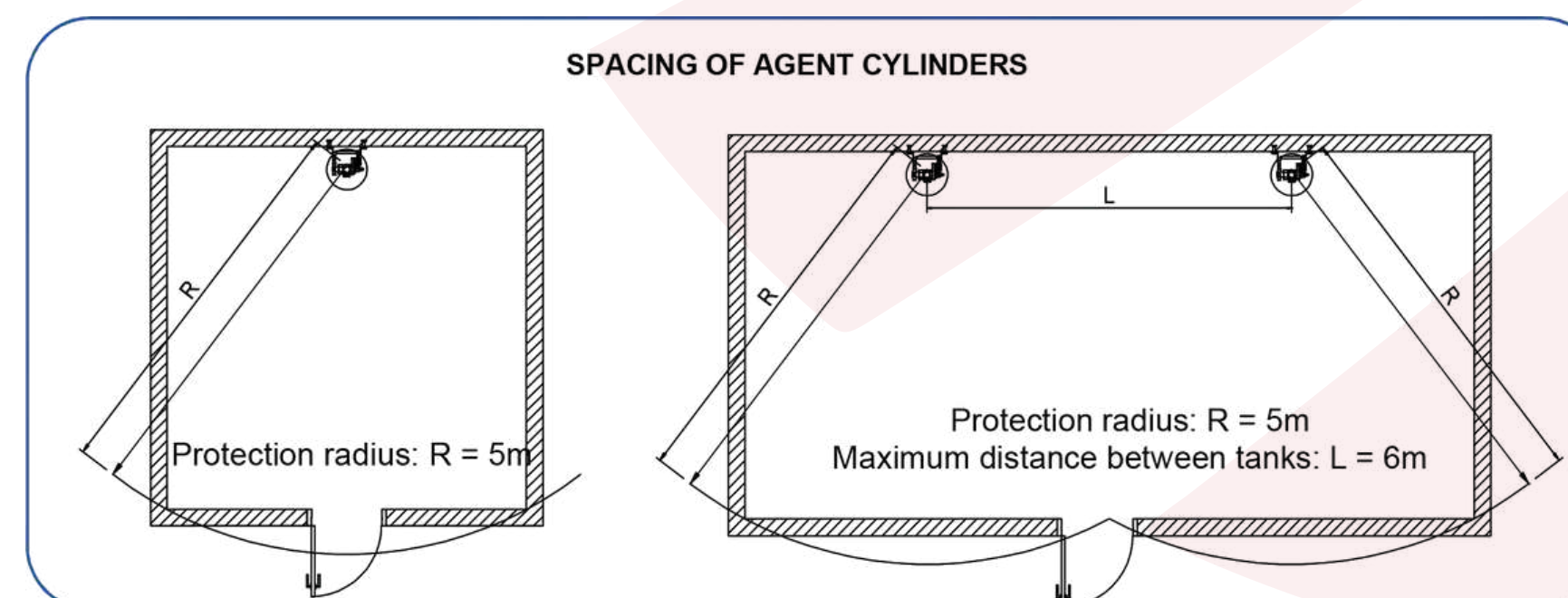
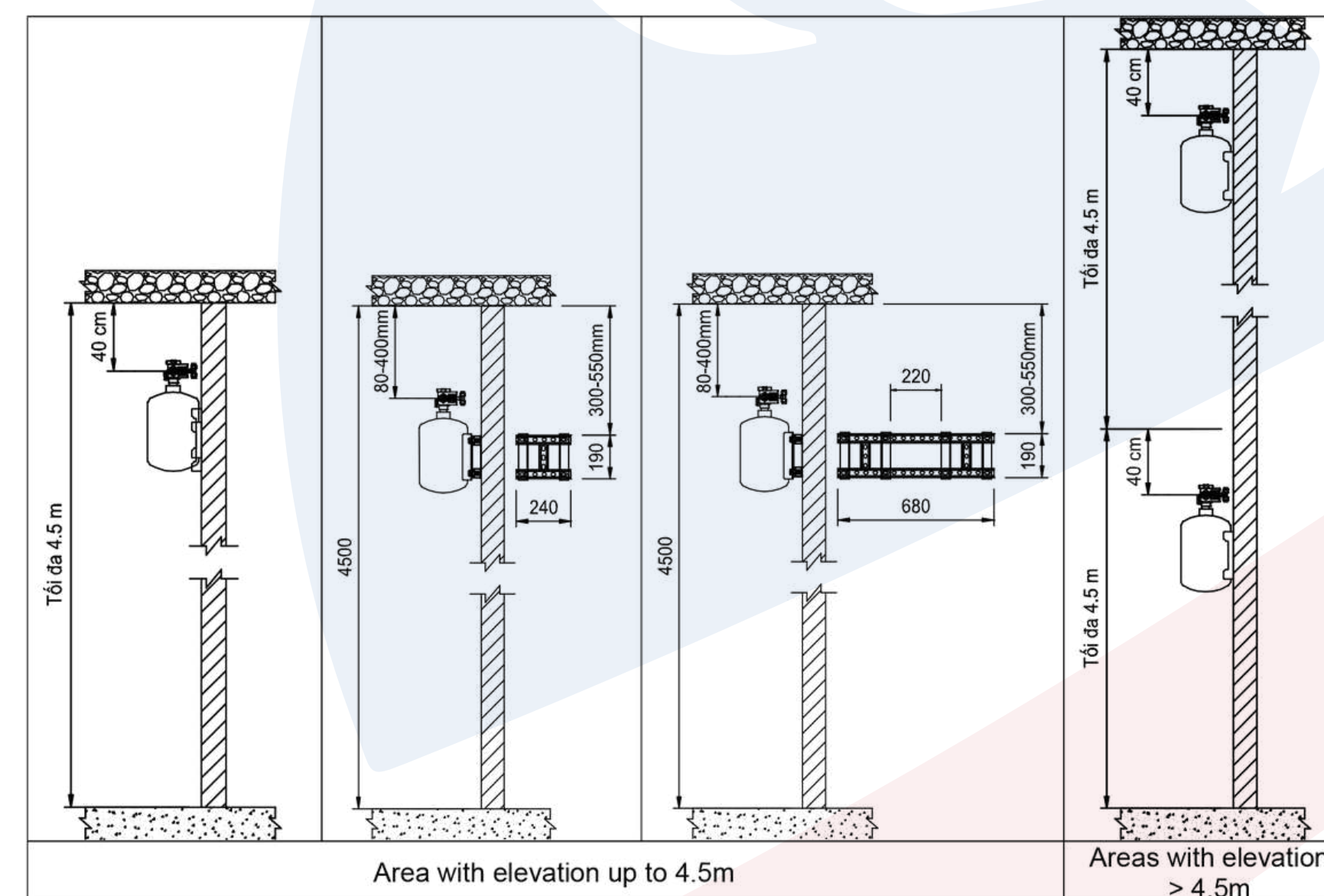
Part Number	SMS-227 8L	SMS-227 15L
Internal Volume	10 liter	15 liter
Filled HFC-227ea(FM-200)	4kg - 8kg	7kg - 15 kg
Filled FK 5-1-12 (Novec 1230™)	4kg - 14 kg	6 kg - 22 kg
Air tank pressure	25 bar	

GENERAL INFORMATION

Extinguishing Agent: HFC-227ea (FM-200) / FK-5-1-12 (Novec 1230™)
Cylinder capacity: 10–15 liters
Automatically activated fire extinguishers in accordance with TCVN 12314-2
Design calculation software certified by VdS / KFI
Automatic activation at 68°C (temperature-based)
Cylinder pressure: 25 bar
Fast discharge time
Simple system configuration; quick installation
Cost-effective solution, optimized for small spaces
Cylinders are interconnected for simultaneous discharge
Pressure and discharge monitoring signals can be connected to the fire alarm system
Rechargeable after use

INSTALLATION

- The SMS-227 system cylinders are supplied with an accessory kit for convenient mounting on a wall or suitable mounting system..
- Installation height and maximum protection area, maximum protection height as the reference image below and detailed in the design and installation manual of the device.



INSPECTION AND MAINTENANCE

At least annually, or more frequently as required by the authority, all systems shall be thoroughly inspected and tested for proper operation by competent personnel.

Container

Containers shall be subjected to periodical tests as required by the relevant national standard.

Hose

All system hoses shall be examined annually for damage. If visual examination shows any defect, the hose shall be replaced.

Enclosures

At least every 12 months it shall be determined whether boundary penetration or other changes to the protected enclosure have occurred that could affect leakage and extinguishant performance.

Operating Principle:

When the ambient temperature rises to 68°C, the heat-sensitive glass bulbs are activated, triggering the release of HFC-227ea (FM-200) or FK-5-1-12 (Novec 1230™) into the protected area.

Upon discharge and exposure to high temperatures, the agent breaks down into free radicals that absorb heat and reduce localized oxygen levels. This interrupts the combustion process and rapidly suppresses the fire.

TECHNICAL SPECIFICATIONS OF THE CYLINDER

Part Number	SMS-227 8L	SMS-227 15L
Internal Volume	10 liter	15 liter
Filled HFC-227ea(FM-200)	4 kg - 8 kg	7 kg - 15 kg
Filled FK 5-1-12 (Novec 1230™)	4 kg - 14 kg	6 kg - 22 kg
Air tank pressure	25 bar	
Discharge Time	≤ 10s	
Air discharge nozzle type	180°	
Activation form	Automatic by heat at 68°C	
Sensor protection mechanism	Full 360° anti-impact protection	
Connect multiple tanks	Allows connection of up to 5 cylinders	
Paint	Red powder-coated paint	
Agent Quality Standard	UL Listed (EX 28624)/ FM Approved (FM23FPUS0263)	
Agent Cylinder pressure monitoring	Meter with monitoring contact connected to fire alarm system (NO)	
Exhaust signal	Air release pressure switch, contact (NO) 3A / 24VDC.	
Standard shell steel	JIS G3116 SG295	
Standard agent cylinder	TCVN 8366	
Applicable Standards	TCVN 12314-2	
Quality Management System	BS EN ISO 9001:2015	
ISO Certification	BS EN ISO 14001:2015 ISO 45001:2018	
Certifications	Fire protection equipment inspection in accordance with NĐ105/2025/NĐ-CP	
Manufacturing Plant	Complies with business operation requirements in accordance with NĐ79/NĐ-CP(NĐ136/2020/NĐ-CP)	



S-500
MINI FIRE EXTINGUISHER – TCVN 13260:2021
WATER-BASED EXTINGUISHING AGENT



PRODUCT INFORMATION

Brand	S-500
Discharge Time	≥12s
Max Throw Distance	≥2m
Spray Efficiency	99%, multiple uses
Operating Temperature Range	0-55°C
Working Pressure	9-10bar
Total Weight	620g
Extinguishing Agent	Water-based (Japanese technology)
Firefighting Effectiveness	0.5A / 8B
Shelf Life	3 years from manufacturing date
Gas Quality Standard	TCVN 13260:2021

KEY FEATURES

- The S-500 extinguisher uses a non-toxic, water-based agent that is non-corrosive to equipment and safe for use in enclosed spaces, homes, offices, and vehicles. It is highly effective against Class A and B fires.
- High firefighting efficiency
- Compact design – easy to use, small capacity (500ml), with a user-friendly valve suitable for the elderly, women, and children.
- The product meets the national standard TCVN 13260:2021.



OEM PRODUCTION
FIRE EXTINGUISHER
ABC DRY POWDER AGENT



CYLINDER 2KG

CYLINDER 4KG

CYLINDER 8KG

PRODUCT INFORMATION

Type	2 Kg	4 Kg	8 Kg
Powder Weight (±3%)	2Kg	4Kg	8 (±3%) Kg
Powder Composition	90% MAP: 75%NH ₄ H ₂ PO ₄ + 15%(NH ₄) ₂ SO ₄ & BASIC PLATE(40um) > 60%		
Firefighting Capacity	1A 21B	2A 55B	4A 144B
Cylinder Diameter	120mm	120mm	165mm
Steel Plate Thickness	1.2 mm	1.2 mm	1.3 mm
Cylinder Pressure	14Bar		
Test Pressure	21Bar		
Throw Distance	≥3m	≥3,5m	≥3m
Discharge Time	≥8s	≥13s	≥15s
Storage Temperature	-20 C~55 C		
Standard	TCVN 7026:2013, TCVN 6102:2020		

KEY FEATURES

- Achieves precise powder ratio using high-tech analyzers – ensuring nearly perfect quality
- Effective on multiple fire types: A (solid), B (liquid), C (gas), and electrical fires
- High firefighting efficiency
- Affordable, easy to use and replace
- Easy storage, no special conditions required
- Versatile capacity, suitable for homes to industrial facilities





CYLINDER 3 LITER

CYLINDER 6 LITER

CYLINDER 9 LITER

PRODUCT INFORMATION

Type	3 liter	6 liter	9 liter
Extinguishing Agent Capacity	3 liter	6 liter	9 liter
Firefighting Capacity	1A 55B	1A 55B	2A 89B
Cylinder Diameter	120mm	165mm	165mm
Steel Plate Thickness	1.2 mm	1.3 mm	1.3 mm
Cylinder Pressure	14Bar		
Test Pressure	21Bar		
Throw Distance	4-6m		
Discharge Time	≥20s	≥35s	≥50s
Storage Temperature	0 C~55 C		
Standard	TCVN 7026:2013, TCVN 13457-1:2022		

KEY FEATURES

- Highly effective on Class A and B fires
- Cools quickly and prevents fire re-ignition
- Safe, non-toxic, and environmentally friendly
- Does not cause damage after discharge, easy to clean surfaces
- Convenient handheld design, easy to operate



Water-based fire extinguishing agent tank



CYLINDER 3KG

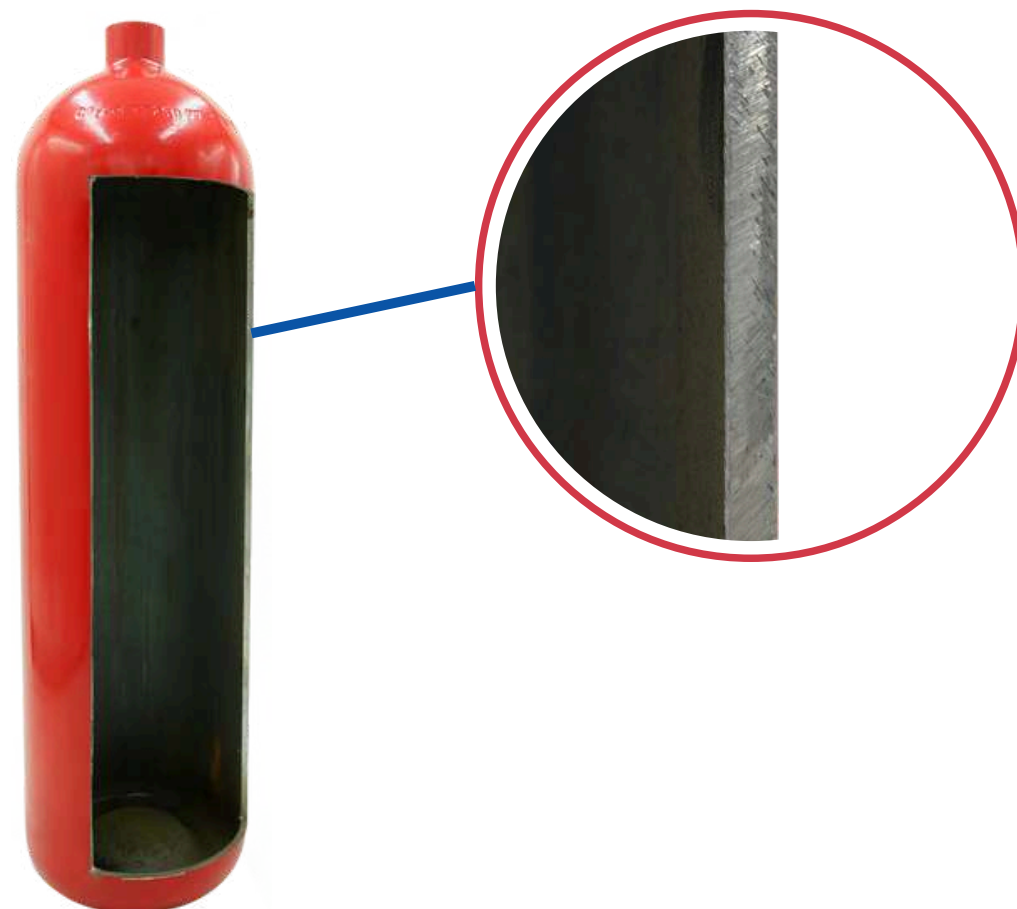
CYLINDER 5KG

PRODUCT INFORMATION

Type	3 Kg	5 Kg
CO2 Weight (±5%)	3Kg	5Kg
Firefighting Capacity	34B	55B
Cylinder Diameter	114mm	152mm
Working Pressure	174 Bar	
Test Pressure	250Bar	
Throw Distance	≥2m	≥2.5m
Discharge Time	≥5s	
Storage Temperature	-10 C~55 C	
Standard	TCVN 7026:2013	

KEY FEATURES

- Highly effective on electrical and flammable liquid (Class B) fires
- Leaves no residue, does not damage equipment after discharge
- Non-conductive, safe for extinguishing electronic equipment fires
- Cools quickly, prevents fire spread
- Non-corrosive, protects equipment and surfaces
- Handheld design, easy to operate, suitable for offices, server rooms, and factories



Cylinder