

## 82.5L FM-200 Cylinder

P/N SFS-C82.5

DT-SFS-C82.5E Rev 1.1  
Effective: July 2019

### FEATURES

- Cylinder and valve complied with KGS standard
- Option pressure gauge with contact
- Working pressure 42 bar
- Seamless cylinder

### DESCRIPTION

SFS fire suppression system 82.5L FM-200 cylinders store suppression agent super-pressurized with dry nitrogen to 42 bar at 21°C (600 PSIG at 70°F). The cylinders are equipped with a cylinder valve, pressure gauge, and optional low-pressure switch intergrated with pressure gauge. The safety burst disc is also located on the cylinder valve.

### OPERATION

The agent storage container discharges when the needle valve operates with pressure from pilot cylinder or solenoid valve (for single cylinder only), causing the cylinder valve to open. The needle valve (P/N SFS-NV82.5) and pilot cylinder (P/N STV-P1L), or solenoid cutter (P/N SFS-SOL) can be used for actuating 82.5L cylinder.

### INSTALLATION

The container is installed in a vertical position with the valve assembly pointing up. Interconnection can be via a DN40 flexible discharge hose and check valve (P/N SFS-FC40) or via a suitably pressure rated thread style fitting.

The container is secured in place by two set of cylinder clamp (P/N SFS-CC-82.5), 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 installed on the cylinder valve replace for normal pressure gauge if required.

### ORDERING INFORMATION

The part number for ordering the 82.5L agent cylinder with accessories as below table:

Part number	Description
SFS-C82.5	FM-200 cylinder 82.5L type included with cylinder valve and pressure gauge
FM-200	FM-200 agent (in kg)
SFS-NV82.5	Needle valve for FM-200, 82.5L cylinder
SFS-PG42	Pressure gauge for FM-200 cylinder (included)
SFS-PG42S	Pressure gauge with switch for FM-200 cylinder (option)
SFS-CC82.5	Cylinder clamp (02 for each cylinder)
SFS-FC40	Flexible discharge hose DN40, included check valve (for 82.5L cylinder)
STV-P1L	Actuator cabinet 1L (included pilot cylinder, solenoid valve, discharge pressure switch)
SFS-SOL	Solenoid cutter for single FM-200 cylinder



### 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.

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.

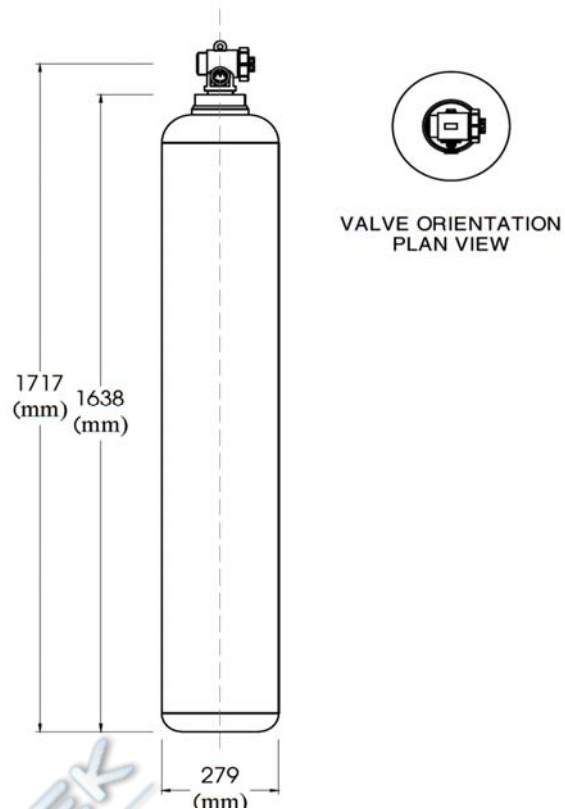
#### Enclosures

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.

#### SPECIFICATION

Part number	SFS-C82.5F
FM-200 fill range	40kg – 80kg (88lbs – 176lb)
Height	1717mm (±10mm)
Diameter	279mm
Internal volume	82.5L
Empty weight	90kg (+5%)
Cylinder material	MN Steel
Cylinder max filling pressure	147bar (2132 psi)
Cylinder tested pressure	245 bar (3553 psi)
Cylinder specification	KGS AC 212
Cylinder valve max filling pressure	147bar (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

#### Dimension



The SFS FM-200 system are designed and manufactured under license from S-TEC SYSTEM (Trademark AnyFire(HFC-227ea)<sup>TM</sup>). Address 82, Sangdeok-ro, Jiksan-eup, Seobuk-Gu, Chaonan-si, Chungnam 31038, KOREA. The calculation software use AnyFire(HFC-227ea)<sup>TM</sup> logo.

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