

Clean Agent Fire Suppression System

The clean agent fire suppression system and its components are agency tested for total flooding applications and should be used in accordance with the guidelines contained in National Fire Protection Association (NFPA) 2001: Standard on Clean Agent Fire Extinguishing Systems.

The clean agent fire suppression systems are safe for people, electrically non-conductive, non-corrosive and free of residue and have zero ozone depletion potential (ODP) to the environment.



CHEMETRON Fire System FM-200

The system and its components are agency tested for total flooding applications and should be used in accordance with the guidelines contained in NFPA 2001. The design of such a system requires that the FM-200 chemical agent be discharged from its container within 10 seconds and be thoroughly mixed throughout the protected volume, reaching a minimum concentration level of 7%, but not exceeding 9% in normally occupied spaces.

CHEMETRON FM-200 Features

FM-200 is recognised by UL and FM as an suppression agent that:

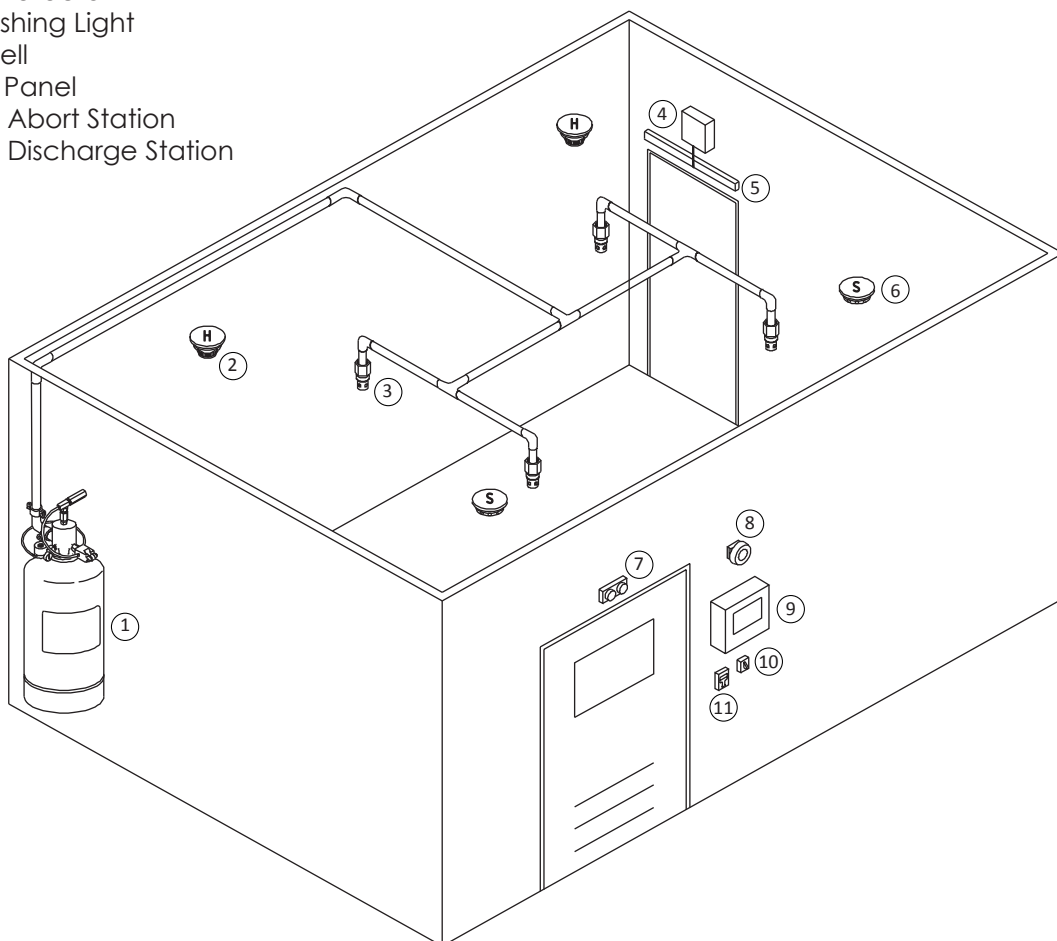
- Safe for people
- Safe for environment
- Leaves no residue after discharge
- Space efficient

CHEMETRON FM-200 System Applications

- Telecommunication Facilities
- Computer Facilities
- Electronics Equipment Room
- Record Storage Facilities
- Pharmaceutical and Medical Facilities
- High Value Assets

Chemetron FM-200 System Typical Arrangement

1. Cylinder and Valve Assembly
2. Heat Detector
3. Nozzle
4. Solenoid 24VDC Tripping Device
5. Smoke Curtain
6. Smoke Detector
7. Twin Flashing Light
8. Alarm Bell
9. Control Panel
10. Manual Abort Station
11. Manual Discharge Station



CHEMETRON FM-200® Beta Series System

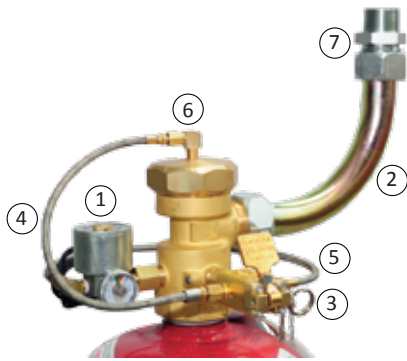
FM-200 is stored in specially designed cylinder assemblies. Beta series cylinders are available in three different capacities and are charged with FM-200 to a filling density up to 1121 kg/m³ of cylinder volume. All cylinders are superpressurized with dry nitrogen to a pressure of 360 psig (2482 kPa), at 21°C. Each cylinder is equipped with an identification nameplate indicating the quantity of FM-200.



| No | Cylinder Size | Part No. | Fill Capacity | | | |
|----|---------------|----------|---------------|------|-----|------|
| | | | Min. | | Max | |
| | | | lb | kg | lb | kg |
| 1 | 40 lb | 10480992 | 21 | 9.5 | 41 | 18.6 |
| 2 | 55 lb | 10480980 | 28 | 12.7 | 55 | 24.9 |
| 3 | 95 lb | 10480991 | 48 | 21.8 | 96 | 43.5 |

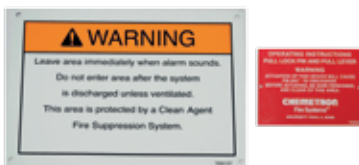
Primary Completer Kit

A primary completer kit is required to complete the installation of each FM-200 cylinder.



| No. | Components | Part No. |
|-----|------------------------------|----------|
| | Primary Completer Kit | |
| 1 | Solenoid Valve | 20610255 |
| 2 | Discharge Tube | 20480335 |
| 3 | Manual - Pneumatic Actuator | 10610729 |
| 4 | 3/16" Flex Hose 16" Long | 10260260 |
| 5 | 3/16" Flex Hose 20" Long | 10260267 |
| 6 | 0° Elbow 1/4" FI x 1/4" MNPT | 50440063 |
| 7 | 1-1/4" NPT Male Connector | 70440009 |

Warning Sign & Operation Nameplate



| No | Description | Part No. |
|----|---------------------|----------|
| 1 | Warning Sign | 70361157 |
| 2 | Operation Nameplate | 70360733 |

Nozzle



| No | Size | Part No. |
|----|------------------|----------|
| 1 | 10mm Nozzle 360° | 10371415 |
| 2 | 13mm Nozzle 360° | 10371416 |
| 3 | 19mm Nozzle 360° | 10371417 |
| 4 | 25mm Nozzle 360° | 10371418 |
| 5 | 32mm Nozzle 360° | 10371419 |
| 6 | 38mm Nozzle 360° | 10371420 |
| 7 | 51mm Nozzle 360° | 10371421 |

CHEMETRON FM-200® Gamma Series System

Gamma Series cylinders are available in four different capacities and are charged with FM-200 to a filling density up to 1121 kg/m³ of cylinder volume. All cylinders are superpressurized with dry nitrogen to a pressure of 360 psig (2482 kPa), at 21°C. Each cylinder is equipped with an identification nameplate indicating the quantity of FM-200.



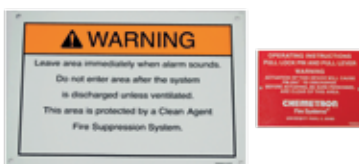
| No | Cylinder Size | Part No. | Fill Capacity | | | |
|----|---------------|----------|---------------|-------|-----|-------|
| | | | Min. | | Max | |
| | | | lb | kg | lb | kg |
| 1 | 150 lb | 10480993 | 82 | 37.2 | 163 | 73.9 |
| 2 | 250 lb | 10480982 | 138 | 62.6 | 274 | 124.3 |
| 3 | 400 lb | 10480983 | 211 | 95.7 | 421 | 191.0 |
| 4 | 550 lb | 10480984 | 282 | 127.9 | 500 | 226.8 |

Nozzle



| No | Size | Part No. |
|----|------------------|----------|
| 1 | 10mm Nozzle 360° | 10371415 |
| 2 | 13mm Nozzle 360° | 10371416 |
| 3 | 19mm Nozzle 360° | 10371417 |
| 4 | 25mm Nozzle 360° | 10371418 |
| 5 | 32mm Nozzle 360° | 10371419 |
| 6 | 38mm Nozzle 360° | 10371420 |
| 7 | 51mm Nozzle 360° | 10371421 |

Warning Sign & Operation Nameplate



| No | Description | Part No. |
|----|---------------------|----------|
| 1 | Warning Sign | 70361157 |
| 2 | Operation Nameplate | 70360733 |

CHEMETRON FM-200® Gamma Series System

Primary Completer Kit

A primary completer kit is required to complete the installation of each FM-200 cylinder.



| No. | Components | Part No. |
|-----|------------------------------------|-----------------|
| | Primary Completer Kit | 20480644 |
| 1 | Solenoid Valve with Pressure Gauge | 20610259 |
| 2 | Pneumatic Actuator | 10630022 |
| 3 | Manual - Pneumatic Actuator | 10610729 |
| 4 | 1/4" Bleeder Valve | 10610731 |
| 5 | 3/16" Flex Hose 20" Long | 10260267 |
| 6 | 3/16" Flex Hose 28" Long | 10260303 |
| 7 | 2" 90° Grooved Elbow | 70390344 |
| 8 | 2" Grooved Coupling | 70390343 |
| 9 | 2" NPT Adapter Nipple | 70400108 |
| 10 | Tee 1/4" F x 1/4" F x 1/4" M | 50480798 |
| 11 | 1/4" Male Connector | 50440029 |

Slave Completer Kit

A slave completer is required to interconnect the cylinders.



| No. | Components | Part No. |
|-----|------------------------------------|-----------------|
| | Slave Completer Kit | 20480645 |
| 1 | Pneumatic Actuator | 10630022 |
| 2 | Pressure Gauge Assembly | 20240040 |
| 3 | 2" Victaulic Connection Kit | |
| | - 2" 90° Grooved Elbow | 70390344 |
| | - 2" Grooved Coupling | 70390343 |
| | - 2" NPT Adapter Nipple | 70400108 |
| 4 | 3/16" Flex Hose 28" Long | 10260303 |
| 5 | 1/4" Tee | 50440211 |

CHEMETRON FM-200® Sigma Series System

Sigma Series cylinders are available in three different capacities and are charged with FM-200 to a filling density up to 1121 kg/m³ of cylinder volume. All cylinders are superpressurized with dry nitrogen to a pressure of 360 psig (2482 kPa), at 21°C. Each cylinder is equipped with an identification nameplate indicating the quantity of FM-200



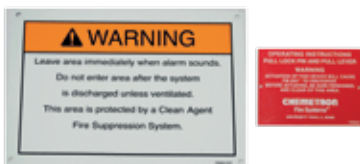
| No | Cylinder Size | Part No. | Fill Capacity | | | |
|----|---------------|----------|---------------|-------|------|-------|
| | | | Min. | | Max | |
| | | | lb | kg | lb | kg |
| 1 | 600 lb | 10481454 | 304 | 137.9 | 607 | 275.3 |
| 2 | 750 lb | 10481455 | 455 | 206.4 | 910 | 412.8 |
| 3 | 1000 lb | 10481456 | 620 | 281.2 | 1000 | 453.6 |

Nozzle



| No | Size | Part No. |
|----|------------------|----------|
| 1 | 10mm Nozzle 360° | 10371415 |
| 2 | 13mm Nozzle 360° | 10371416 |
| 3 | 19mm Nozzle 360° | 10371417 |
| 4 | 25mm Nozzle 360° | 10371418 |
| 5 | 32mm Nozzle 360° | 10371419 |
| 6 | 38mm Nozzle 360° | 10371420 |
| 7 | 51mm Nozzle 360° | 10371421 |

Warning Sign & Operation Nameplate

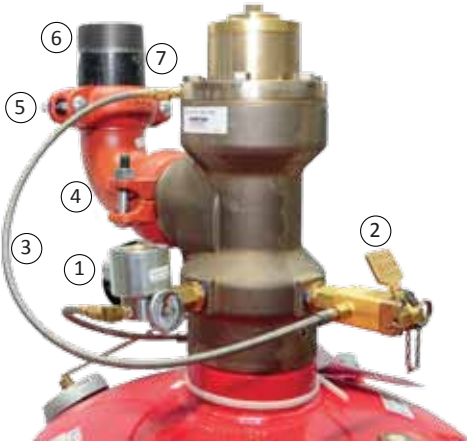


| No | Description | Part No. |
|----|---------------------|----------|
| 1 | Warning Sign | 70361157 |
| 2 | Operation Nameplate | 70360733 |

CHEMETRON FM-200® Sigma Series System

Primary Completer Kit

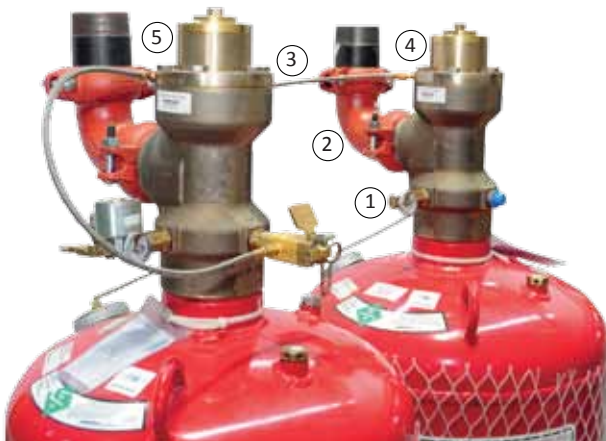
A primary completer kit is required to complete the installation of each FM-200 cylinder.



| No. | Components | Part No. |
|-----|------------------------------------|----------|
| | Primary Completer Kit | |
| 1 | Solenoid Valve with Pressure Gauge | 20610276 |
| 2 | Manual - Pneumatic Actuator | 10610729 |
| 3 | 3/16" Flex Hose 28" Long | 10260303 |
| 4 | 3" 90° Grooved Elbow | 70390542 |
| 5 | 3" Grooved Coupling | 70390540 |
| 6 | 3" NPT Adapter Nipple | 70400133 |
| 7 | Male Connector 1/4" x 1/8" MNPT | 50440028 |

Slave Completer Kit

A slave completer is required to interconnect the cylinders.



| No. | Components | Part No. |
|-----|---------------------------------------|----------|
| | Slave Completer Kit | |
| 1 | Pressure Gauge Assembly | 20240041 |
| 2 | 3" Victaulic Connection Kit | |
| | - 3" 90° Grooved Elbow | 70390542 |
| | - 3" Grooved Coupling | 70390540 |
| | - 3" NPT Adapter Nipple | 70400133 |
| 3 | 3/16" Flex Hose 28" Long | 10260303 |
| 4 | 1/4" Flare x 1/8" MNPT Male Connector | 50440029 |
| 5 | 1/4" Flare x 1/4" MNPT Male Connector | 50440028 |

CHEMETRON Fire System FM-200

Micro XLT Nema 1



| | |
|-------------------------------|-----------------------|
| Part No. | 70101533 |
| Power Supply | 120/240 VAC, 50/60 Hz |
| Internal Power Supply | 24 DC |
| Power Output | 5.4 Amps at 27 VDC |
| Auxiliary Power Output | 5.4 Amps at 27 VDC |
| Detection Circuit | Max 25 detectors. |

Photoelectric Smoke Detector Head



| | |
|------------------------------|--------------------------------|
| Part No. | 70101551,70101552 |
| Detection | Photoelectric |
| Nominal Sensitivity | 3.25% per ft. Obscuration |
| Standby Voltage | 10.2 to 36.8 V DC |
| Maximum Current | Standby - 70µA, Alarm – 100 mA |
| Operating Temperature | 0° to 49°C |
| Relative Humidity | 0 to 93% Non-condensing |

Electronic Heat Detector



| | |
|-------------------------------|--------------------------------|
| Part No. | 70-520000-001, 70-501000-001 |
| Activation Temperature | 57°C Fixed Temperature |
| Nominal Sensitivity | 8.3°C per minute Rate-of-Rise |
| Standby Voltage | 10.2 to 36.8 VDC |
| Maximum Current | Standby - 70µA, Alarm – 100 mA |
| Maximum Current | Standby - 70µA |
| | Alarm – 100 mA |
| Operating Temperature | 0° to 49°C |

Series 439D Vibrating Bell



| | |
|-----------------------|--------------------|
| Part No. | 70030137, 70030138 |
| Size | 6 inch |
| Input Voltage | 24Vdc / 120Vac |
| dBa @ 10 ft | 92 |
| Current (Amps) | 0.085 |

Twin Flashing Light



| | |
|--------------------------|----------------------------------|
| Part No. | KP305L |
| Operating Voltage | 24VDC |
| Lens | Prismatic polycarbonate lens |
| Luminary | Filament Bulb / Ultra Bright LED |
| Finishing | Black casing |

CHEMETRON Fire System FM-200

Deadman Abort Station



| | |
|-------------------|---|
| Part No. | 20100144 |
| Operating | Manually |
| Purpose | Suspend the discharge of system |
| Activation | By lifting the switch guard cover, which breaks the protective seal and allows the toggle switch to be pushed into the ON position. |

Double Action Manual Pull Station



| | |
|---------------------------------|--------------------------|
| Part No. | 70101784 |
| Station Type | Double Action, Non-coded |
| Switch Rating | 2 Amp @ 24 VDC |
| Operating Temperature | -40°C to 66°C |
| Operating Humidity Range | 0-95% RH |
| Construction | Die-cast Metal Housing |

Backup Battery



| | |
|------------------------------|--------------------|
| Part No. | GPP-1272 |
| Nominal Voltage | 12V |
| Capacity | 7.2AH 12AH, 17 AH. |
| Design Life | 4 years |
| Operating Temperature | -10°C to 55°C |

Solenoid Tripping Device



| | |
|----------------------|-------------------------|
| Part No. | TD |
| Input Voltage | 24VDC |
| Size (mm) | 180(W) x 90(D) x 204(H) |
| Material | Aluminium Alloy |
| Finishing | Red Polyester |

IP65 Weatherproof Cabinet



| | |
|------------------|--------------------------|
| Part No. | CAB-CHE-MXLT |
| Size (mm) | 520(W) x 165(D) x 640(H) |
| Material | Aluminium Alloy |
| Finishing | Red Polyester |