

WORLD LEADER IN MARINE FIRE SUPPRESSION TECHNOLOGY



WWW.SEA-FIRE.COM



WHO IS SEA-FIRE?

Sea-Fire Marine, World Leader in Marine Fire Suppression Technology, is not just a company; it is a company of people dedicated to the protection of people and their investments. With Sea-Fire's FM-200 Automatic and Manual/Automatic fire suppression systems, boaters enjoy the peace of mind only constant protection provides. Onboard and always on, Sea-Fire's FG and FD Pre-Engineered product lines offer the ultimate in 24/7 fire protection: fully automatic, with no hands-on firefighting required.

A division of Metalcraft, Inc., Sea-Fire Marine benefits from more than 40 years of experience in fire extinguishing and suppression technology. In combination, we are a global leader in the design and manufacture of fire extinguishers and fire suppression systems for the marine and pleasure craft industry. Our fire suppression systems and related products are recognized worldwide for their advanced technology, innovation in design, and quality in manufacture. Designed to provide cost effective, environmentally responsible clean agent fire protection solutions that are people-safe, Sea-Fire's systems are fast, effective, and trusted by more boat owners than any other.

Proud of its reputation and devoted to its customers, Sea-Fire products are made in America and offered throughout an ever-widening circle of boat builders and marine product distributors with discriminating taste for quality craftsmanship and personalized service. Sea-Fire's recently expanded European facility ensures efficient delivery and personalized customer service throughout the world. Sea-Fire is trusted to ensure continuous improvements and enhanced product design as the result of deliberately elevated standards, underscoring a commitment to quality products and total customer satisfaction that can mean only one thing: You're safe with Sea-Fire



WHY FM-200 AUTOMATIC FIRE PROTECTION?

Sea-Fire was the first fire extinguisher manufacturer to utilize the renowned FM-200 agent for marine applications. The most widely accepted and safest extinguishing agent on the market today, FM-200 delivers optimum extinguishing performance in seconds, operating primarily by removing heat energy from a fire and inhibiting combustion. A clean, gaseous vapor, FM-200 leaves no messy foam or powder residue behind. Thus, sensitive electronics, radar equipment, and the engine itself can be fully operational following its use. As a result, many insurance carriers offer lower rates for vessels fitted with a Sea-Fire FM-200 system.

SECURITY

Recognized as the premier Halon replacement, FM-200 enjoys worldwide acceptance. Since 1993, more than 100,000 Sea-Fire FM-200 Pre-Engineered systems have been installed worldwide. The same agent used to protect sensitive computer equipment, library records and museum artifacts, FM-200 has also replaced ozone depleting CFC propellants in pharmaceutical inhalers. Non-toxic and non-corrosive, more than 70 industry toxicity tests verify the safety of its use in occupied areas.

NO SECOND CHANCES

With Sea-Fire systems onboard, there is no need to actively fight an engine room fire. Immediately upon the detection of excess heat energy Sea-Fire FM-200 systems deploy, delivering optimum extinguishing performance in a matter of seconds. Manual activation is also an option, with a cable release safely located outside the engine compartment to further minimize the risk of fire damage upon detection of smoke or flames.

SAFETY

Because Sea-Fire's primary focus is people, safety is paramount. Sea-Fire's innovative design was the first to feature a custom developed safety pin which protects the installer, service technician and boat owner from accidental discharge during system installation and maintenance.

SERVICE

Sea-Fire's cutting edge technology sets an industry standard, while all FM-200 Pre-Engineered systems meet stringent approvals standards. Should you experience a malfunction with any Sea-Fire product or component, our dedicated staff is eager to demonstrate our commitment to providing a superior customer service experience.

VISIT OUR WEBSITE: WWW.SEA-FIRE.COM



SEA-FIRE FM-200 AUTOMATIC & MANUA



FD MODEL	SERIES	
Maximum Volume of Protection cubic feet = cu.ft. cubic meters = cu.m.	FD Model Manual/Auto Automa	matic "M"
150 CU. FT. (4.2 CU. M.)	FD 150M	FD 150A
175 CU. FT. (5.0 CU. M.)	FD 175M	FD 175A
200 CU. FT. (5.7 CU. M.)	FD 200M	FD 200A
225 CU. FT. (6.4 CU. M.)	FD 225M	FD 225A
250 CU. FT. (7.1 CU. M.)	FD 250M	FD 250A
275 CU. FT. (7.8 CU. M.)	FD 275M	FD 275A
300 CU. FT. (8.5 CU. M.)	FD 300M	FD 300A
325 CU. FT. (9.2 CU. M.)	FD 325M	FD 325A
350 CU. FT. (9.9 CU. M.)	FD 350M	FD 350A
400 CU. FT. (11.3 CU. M.)	FD 400M	FD 400A
450 CU. FT. (12.7 CU. M.)	FD 450M	FD 450A
500 CU. FT. (14.2 CU. M.)	FD 500M	FD 500A
550 CU. FT. (15.6 CU. M.)	FD 550M	FD 550A
600 CU. FT. (17.0 CU. M.)	FD 600M	FD 600A
650 CU. FT. (18.4 CU. M.)	FD 650M	FD 650A
700 CU. FT. (19.8 CU. M.)	FD 700M	FD 700A
750 CU. FT. (21.2 CU. M.)	FD 750M	FD 750A
800 CU. FT. (22.7 CU. M.)	FD 800M	FD 800A
850 CU. FT. (24.1 CU. M.)	FD 850M	FD 850A
900 CU. FT. (25.5 CU. M.)	FD 900M	FD 900A
950 CU. FT. (26.9 CU. M.)	FD 950M	FD 950A
1000 CU. FT. (28.3 CU. M.)	FD 1000M	FD 1000A
1050 CU. FT. (29.8 CU. M.) 1100 CU. FT. (31.3 CU. M.) 1150 CU. FT. (32.6 CU. M.) 1200 CU. FT. (34.0 CU. M.) 1250 CU. FT. (35.4 CU. M.) 1300 CU. FT. (36.8 CU. M.) 1350 CU. FT. (38.8 CU. M.)	FD 1050M FD 1100M FD 1150M FD 1200M FD 1250M FD 1300M FD 1350M	Determicubic feet compartme Select

FD 1400M

FD 1450M

FD 1500M



SELECTING THE PROPER MODEL SIZE EXTINGUISHING SYSTEM:

- nine the volume of the engine compartment to be protected in or cubic meters: Measure Length, Width and Height (LxWxH) of nent taking into consideration the curvature of the hull. an automatic ("A") designation or manual/automatic ("M")
- designation.
- 3. From the SEA-FIRE® Model Series FG or FD specification table, select the model that meets or exceeds the calculated volume of the engine compartment.

GENERAL INFORMATION:

1400 CU. FT. (39.6 CU. M.)

1450 CU. FT. (41.1 CU. M.)

1500 CU. FT. (42.5 CU. M.)

Application: SEA-FIRE FM-200® extinguishing systems are designed to protect enclosed compartments. The systems are deal for marine engine compartment protection where the potential for a fire hazard may occur. SEA-FIRE FM-200 FG & FD extragaishing systems are designed to induce a minimum atmospheric concentration of 8.7% within the protected compartment. FG models are suitable for use from 0°F (-18°C) to 130°F (54°C) and FD models from 20°F (-7°C), to 130°F (54°C).

Refill/Recharge: FG models are non-refillable. Contact SEA-FIRE for Customer Replacement Program, All FD models are factory refillable. Contact SEA-FIRE or an authorized dealer for details.

Custom (Optimum Fill) Models: The specification table lists the standard FG & FD model sizes. Custom or ("Optimum Fill") models are also available. Models can be filled with FM-200® extinguishing agent in cubic foot or cubic meter increments to a specific volume requirement (i.e. 213 cubic feet). Contact SEA-FIRE or an authorized representative for details,

Installation: SEA-FIRE FG & FD models are pre-engineered systems. This means that each system model size is designed to protect up to a specific volume of engine compartment space. As a result, selection and specification of a model size is Pasy.

Installation is relatively simple. All systems arrive complete and ready for installation including detailed installation installation. sturdy mounting bracket.

Manual/Automatic systems: All FG & FD systems operate automatically through heat activation. However systems with an "M" designation contain a manual capability feature. That is, the boat operator has the option of pulling a discharge cable which activates the fire system.

Warranty: SEA-FIRE quality is in every FM-200® extinguishing system. SEA-FIRE warrants all FG & FD models for a three year period. Contact SEA-FIRE or an authorized representative for details.

L/AUTOMATIC FIRE EXTINGUISHING SYSTEM



U.S.C.G. APPROVED

















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world.

FG 175A

FG 200A

FG 225A

FG 240A

Australian National Marine Safety Committee, South African Maritime Safety Authority (SAMSA), PED/TPED and other approvals from around the world. See below.

MANUAL FIRE EXTINGUISHING SYSTEM



MD MODEL SERIES		
Maximum Volume of Protection cubic feet = cu.ft. cubic meters = cu.m.	MD Model Number	
150 CU. FT. (4.2 CU. M.)	MD 150M	
175 CU. FT. (5.0 CU. M.)	MD 175M	
200 CU. FT. (5.7 CU. M.)	MD 200M	
225 CU. FT. (6.4 CU. M.)	MD 225M	
250 CU. FT. (7.1 CU. M.)	MD 250M	
275 CU. FT. (7.8 CU. M.)	MD 275M	
300 CU. FT. (8.5 CU. M.)	MD 300M	
325 CU. FT. (9.2 CU. M.)	MD 325M	
350 CU. FT. (9.9 CU. M.)	MD 350M	
400 CU. FT. (11.3 CU. M.)	MD 400M	
450 CU. FT. (12.7 CU. M.)	MD 450M	
500 CU. FT. (14.2 CU. M.)	MD 500M	
550 CU. FT. (15.6 CU. M.)	MD 550M	
600 CU. FT. (17.0 CU. M.)	MD 600M	
650 CU. FT. (18.4 CU. M.)	MD 650M	
700 CU. FT. (19.8 CU. M.)	MD 700M	
750 CU. FT. (21.2 CU. M.)	MD 750M	
800 CU. FT. (22.7 CU. M.)	MD 800M	
850 CU. FT. (24.1 CU. M.)	MD 850M	
900 CU. FT. (25.5 CU. M.)	MD 900M	
950 CU. FT. (26.9 CU. M.)	MD 950M	
1000 CU. FT. (28.3 CU. M.)	MD 1000M	
1050 CU. FT. (29.8 CU. M.)	MD 1050M	
1100 CU. FT. (31.3 CU. M.)	MD 1100M	
1150 CU. FT. (32.6 CU. M.)	MD 1150M	
1200 CU. FT. (34.0 CU. M.)	MD 1200M	
1250 CU. FT. (35.4 CU. M.)	MD 1250M	
1300 CU. FT. (36.8 CU. M.)	MD 1300M	
1350 CU. FT. (38.8 CU. M.)	MD 1350M	
1400 CU. FT. (39.6 CU. M.)	MD 1400M	
1450 CU. FT. (41.1 CU. M.)	MD 1450M	
1500 CU. FT. (42.5 CU. M.)	MD 1500M	



SELECTING THE PROPER MODEL SIZE EXTINGUISHING SYSTEM:

- 1. Determine the volume of the engine compartment to be protected in cubic feet or cubic meters. Measure: Length, Width, Height (LxWxH) of compartment taking into consideration the curvature of the hull.
- 2. Select the model from the specification table that meets or exceeds the calculated volume of the engine compartment.

GENERAL INFORMATION:

Application: The versatility of the design of the MD series fire extinguisher line is ideal for a broad range of applications. These applications would include marine, commercial and industrial use where electrical or flammable liquids are the likely source of fire, such as engine and generator rooms, electrical components, paint and flammable storage lockers.

Approvals: Sea-Fire MD series have passed a rigid testing program and carry a Factory Mutual Research Corporation (FM) approval for fire suppression application in marine applications including approvals from around the world.











OTHER SEA-FIRE FM-200 PRODUCTS

Engineered Systems
For volumes from 1,500 cu FT (42.5 cu M) up to 17,500 cu FT (500 cu M)



"H" Series Engineered

Developed for high volume applications, Sea-Fire's "H" Series custom-engineered fire suppression systems are the solution for protection of large pleasure craft, yachts, transport vessels, workboats and onshore/offshore marine applications.

"H" Series systems carry Factory Mutual (FM), United States Coast Guard (USCG), American Bureau of Shipping (ABS), Transport Canada (TC), Registro Italiano Navale (RINA), Maritime Coastal Agency (MCA)/Lloyds Register, Det Norske Veritas (DNV), Germanischer Lloyd (GL), and CE/TPED approvals, verifying conformity with stringent national and international standards. Engineered systems are tested in accordance with IMO/SOLAS requirements, and can be configured for spaces from 1,500 to 17,500 cubic feet.



Stinger Series
For volumes from 25 cu FT (.71 cu M) up to 150 cu FT (4.2 cu M)





"FT" Stinger Pre-Engineered

6 standard models sizes available. United States Coast Guard approved in sizes from 25 cubic feet (.71 cu. meters) up to 150 cubic feet (4.2 cu. meters) of protected volume. Stinger's innovative design is ideal for the protection of small volume areas where flammable liquids are likely the source including marine, recreational vehicles, commercial and industrial use, wire harnesses, electrical boxes and long narrow enclosures where access is difficult for traditional fixed suppression systems. Stingers require no external power so they are not sensitive to power failures or shut downs. Approvals include: CE/PED and United States Coast Guard (USCG).

Portable Fire Extinguishers
Available in 3 models: C-20, C-50, and C-100



"C" Series Portable

FM-200® portable fire extinguishes are designed for the protection of areas where the benefits of "clean agent" fire extinguishing are required. Typically, these are areas that contain critical or irreplaceable assets which may be damaged or destroyed by water, foam, dry chemical, or carbon dioxide extinguishers. FM-200® portable fire extinguishers are ideal for small oil, grease, or electrical fires that may arise in the galley or accommodation space of a marine vessel. Approvals include: Underwriters Laboratory (UL). C-50 and C-100 models are United States Coast Guard (USCG) approved. C-50 is also Federal Aviation Administration (FAA) approved.



ELECTRICS & ACCESSORIES

Designed and Engineered for use with SEA-FIRE FM-200® Fire Extinguishing systems

Automatic Engine Shutdown System

ESRS MODEL SERIES III (3) CIRCUIT ESRS MODEL SERIES V (5) CIRCUIT ESRS MODEL SERIES VIII (8) CIRCUIT

SEA-FIRE ESRS engine shutdown system will automatically shutdown engines and powered ventilation upon discharge of the fire extinguishing system. Three model sizes available with shutdown capability for up to eight devices (engines, blowers, etc.).

Each ESRS system requires a panel mounted display (from the 131-280 series or 131-410 series) with visual and audible alarm, discharge lights and an override switch for engine restart and control. Standard models are 12 and 24 VDC (combinations available). All ESRS models comply with ISO marine 8846 and meet CE approval standards.



ESRS 131-200 Series

Engine Shutdown System Display Units & Heat Sensors

Fire Suppression Supervisory Panels 131-400 Series

PRIE BUPPRESIÓN SYSTEM MONTON
POWER
DISCHARGE
SHUTDOWN RESET
BRANCE

131-411

Panel mounted displays give both a visual and audible alarm in the event of extinguisher discharge or low cylinder pressure. Fully compatible with the ESRS 131-200 Series shutdown units. All displays available in rectangular or round panels. All displays comply with ISO marine 8846 and meet CE approval.

Round: 2.44" (62mm) diameter

Rectangualr: 3.62" x 2.83" (92mm x 72mm)

131-400/131-401 - Fire Suppression Supervisory Panel

131-410/131-411 - Fire Suppression System Monitor with Engine Shutdown Control

131-420/131-421 - Fire Suppression System Monitor with Engine Shutdown Control and High Temperature Zone. Use with multiple Sea-Fire Heat Sensors (PN 131-303)

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131-425/131-426 - Fire Suppression System Monitor & Engine Shutdown System with Auxilary Zone

131-427/131-428 - Fire Suppression System Monitor & Engine Shutdown System with Low Pressure Monitor



131-420

Heat Sensor 131-303 & 131-304





131-304

Sea-Fire's new Heat Sensor alerts boat owners to dangerously high engine room temperatures. Intended for engine rooms in any sized craft up to large yachts. The sensors are available in two versions. An open model (131-303) is deisgned to be mounted on the extinguishing system cylinder and is set at $151^{\circ}F$ ($66^{\circ}C$), which is $24^{\circ}F$ ($13^{\circ}C$) lower than the system discharge temperature of $175^{\circ}F$ ($79^{\circ}C$). The other heat sensor (131-304) features an enclosed casing for installation throughout the engine room compartment. It activates at $140^{\circ}F$ ($60^{\circ}C$).

These sensors indicate threatening temperatures and give boat owners a chance to stop impending fires. Simple to install, multiple sensors can be mounted in an engine room depending on desired sensitivity. The system is compatible with the full range of Sea-Fire's ESRS units, allowing for shutdown override control and cylinder discharge notification.

ELECTRICS & ACCESSORIES

Designed and Engineered for use with SEA-FIRE FM-200® Fire Extinguishing systems

NEW ESRS Engine Shutdown System



This new generation ESRS shutdown system takes advantage of microprocessor technology to improve the functionally and flexibility of the traditional ESRS. Attention has been focused on producing a unit that is quick and simple to install. The new display panel is a plug and play via a CAT5 cable connection. All ESRS models comply with ISO marine 8846 and meet CE approval standards.

Features: Operating voltage between 9-31 VDC, available in 4, 6, 8 relay units, plug and play to multiple display panels, and fast installation with spring cage connectors. Relay reset timer version available.

Fire Suppression Supervisory Panel 131-460 Series

All displays available in rectangular or round panels.

131-460/131-461 - Fire Suppression System Monitor & Engine Shutdown Control

131-462/131-463 - Fire Suppression System Monitor & Engine Shutdown with High Temperature Zone. Use with multiple heat sensors (PN 131-303)

131-464/131-465 - Fire Suppression System Monitor & Engine Shutdown System with Auxiliary Zone

131-466/131-467 - Fire Suppression System Monitor & Engine Shutdown System with Low Pressure Monitor



131-460

NEW FireStop Fire Detection System

FireStop Fire Control Panel (FCP) 131-500

The FireStop Fire Control Panel (FCP) is a low voltage, 9-30 VDC, fire detection and control system designed for use in the marine environment. The FCP integrates fire extinguisher monitoring, fire detection and machinery shutdown control in a modular design that can be expanded to meet the requirements of a wide range of applications.

Dimensions: 10" x 7" (254mm x 178mm)



Features: Full machinery shutdown management with seven relays plus one auxiliary reset relay, fault monitoring, cylinder pressure and discharge monitoring of extinguisher, strategically placed display panels throughout vessel, and early detection of warning of fire - two zone with multiple detectors linked to zone identification panel. FireStop Fire Detection System complies with ISO marine 8846 and meet CE approval standards.



Display Panel 131-510

Up to four panels receive system status via CAT5 data cables and can be strategically placed throughout the vessel. The weatherproof tactile display incorporates LED's to indicate alarms and faults. The reset button overrides the engine shutdown.



Adapter Panel 131-520

The Fire Control Adapter Panel increases the number of Smoke/Heat or Carbon Monoxide Detectors that can be wired to the Fire Control Panel (131-500). The Adapter Panels have unlimited linking potential with a max of ten Smoke/Heat sensors or four Carbon Monoxide Detectors to each Adapter Panel.



Zone Identification Panel (ZIP) 131-530

The Zone Identification Panel is custom designed and works in conjunction with the FireStop Control Panel (PN 131-500). It identifies the exact location of the detected warning.

ELECTRICS & ACCESSORIES

Designed and Engineered for use with SEA-FIRE FM-200® Fire Extinguishing systems

Manual Discharge Cable Assemblies



SMAC Cable Assembly

SEA-FIRE FG or FD manual/automatic "M" models and MD series require a discharge cable assembly for manual discharge of the extinguishing system. The SMAC discharge cable is available in 1 FT (0.30 M) increments for manual discharge from 6 FT (1.83 M) up to 75 FT (22.86 M). Each cable assembly kit includes a pull handle, cable, escutcheon plate, safety pin, tie and instructions.

Single Direction Bi-Directional

PN	PN	LENGTH
135-006	136-006	6 FT/1.83M
135-012	136-012	12 FT/3.66M
135-024	136-024	24 FT/7.32M
135-075	136-075	75 FT/22.86M
	27 17 1 27 1 28 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	

Single and bi-directional cables with fire resistant sleeve included. Available in 1 FT (0.30 M) increments - PN 135-200 series and 136-200 series.

Dual Discharge Cable Adapter



131-060



Fire resistant SMAC cable sleeving required for MD series systems.

Carbon Monoxide (CO) Detector

124-854/124-855 - Flush mount (white/black) 124-856/124-857 - Surface mount (white/black)

SEA-FIRE'S CO Detector will alert the boater to potentially dangerous situations. Carbon monoxide (CO) is produced when any type of fuel is incompletely burned. Potential sources of CO in and around a boat can endanger lives even at low levels of concentration. Potential sources of CO in and around your boat can include gas or diesel engine exhaust, portable space heaters, galley gas stoves and ovens, and defective engine exhaust systems. SEA-FIRE'S CO Detector helps protect you from CO produced while using your boat. CO detector is available in white or black.



124-856

Alarms & Sounders



Horn Strobe Assembly 12/24 VDC (PN 131-296) Waterproof box included

Remote Warning Bell 12 VDC (PN 131-297) 24 VDC (PN 131-298)

SDDA Visual Audible Alarm 12/24 VDC (PN 131-290)

Remote Sounder

Part not sold individually. Available as a replacement part or included in packages with PN: 131-282, 131-283 & 131-285.

MARINE L.P. GAS DETECTION

NEW Sea-Fire Product Line

Gas Regulators

150-010	L.P.	Gas	Regulator -	- Single	Stage	Wall	Mount	6.5	" x	3"	x 3	"
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L.P. Gas Regulator - Single Stage Wall Mount w/ Pigtail 6.5" x 3" x 3" 150-011

L.P. Gas Regulator - Single Stage Wall Mount w/*QCC Pigtail 6.5" x 3" x 3" 150-012

L.P. Gas Regulator Assembly - Reserve Cylinder Adapter 150-013

*QCC = Quick-Closing Coupling



150-010

Gas Control & Detection System

L.P. Gas Control & Detection Systems turn L.P. gas ON or OFF from inside galley and continuously monitor space(s) for presence of L.P. gas.

150-016	Gas Control & Detection System - 3/8" Solenoid Kit
150-017	Gas Control & Detection System - add on Detector

Gas Control & Detection System - add on Detector 150-018 Gas Control & Detection System - 10' Quick Connect Cable 150-019 Gas Control & Detection System - 20' Quick Connect Cable









Solenoid Shut Off Valves Kits

150-014 Solenoid shut off valve kit - 12VDC LP







150-015

VDC Gas Control & Solenoid Shut Off Valve Kits

150-015 VDC Gas Control & Solenoid Shut Off Valve Kit - 3/8"



Gas supply Line Hoses

150-001 HP L.P. Gas Hose with Swivel Flares - 5' x 1/4" ID 150-002 HP L.P. Gas Hose with Swivel Flares - 10' x 1/4" ID 150-003 HP L.P. Gas Hose with Swivel Flares - 15' x 1/4" ID 150-004 HP L.P. Gas Hose with Swivel Flares - 20' x 1/4" ID HP L.P. Gas Hose with Swivel Flares - 25' x 1/4" ID 150-005







150-006

Straight-thru Fittings

150-006 Straight thru fitting - L.P. Gas Supply Line Hoses Straight thru fitting - L.P. Gas Copper Tubing & Wiring 150-007



Gas Pigtail Hoses

150-008 L.P. Gas Pigtail Hose - Soft Nose - 20" 150-009 L.P. Gas Pigtail Hose - Quick Close - 20"

"Camping Gaz" System Adapter to US Cylinders

150-120 European "Camping GAZ" System Adapter to US Cylinder

Gas System Adapter to European "Gaz" Cylinders

150-121 US L.P. Gas System Adapter to European "GAZ" Cylinders

Composite Gas Cylinders

150-122 Composite L.P. Gas Cylinders - 16.5# Composite L.P. Gas Cylinders - 11.0# 150-123



150-123

