



# GA Series Total Flooding Fire Extinguishing System



### INNOVATIVE PRE-ENGINEERED SYSTEM DESIGN FOR ENGINE ROOM FROM 45.3 CUBIC METERS TO 85 CUBIC METERS

# Product Description

- Each system includes twin extinguisher tanks, flexible braided stainless steel hosing, two overhead temperature sensors, fire resistant manual release cables, and an engine shutdown control.
- Four temperature sensors monitor engine room temperature 24 hours per day. When engine room temperature reaches 79°C (175°F) or 68°C (155°F), the system will discharge.
- Complete system and components custom fitted for each application.
- Exclusive, patent pending safety lock poppet valve that eliminates accidental discharge.
- Simple and less costly system installation compared to engineered systems – no third party certification required.
- Single cylinder systems available for engine room volumes of 17m<sup>3</sup> to 42.5m<sup>3</sup>

# **DESCRIPTION OF COMPONENTS**

**Extinguisher Cylinders:** Steel cylinders, DOT and FM approved for the GA Series working pressure and powder coated red for corrosion protection.

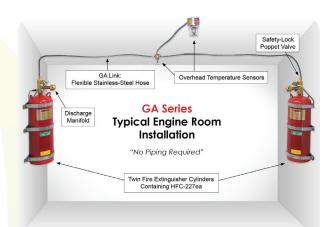
Safety Lock Poppet Valve: Patent pending system that prevents accidental discharge during shipping, warehouse handling and installation

**GA Link:** Flexible braided 316 stainless steel hosing with double check valve quick-connect couplings for easy attachment/re-attachment to the cylinder valve

**Overhead Temperature Sensors:** Mounted over the engines to monitor ambient engine room temperature; trigger system discharge upon reaching 79°C (175°F) or 68°C (155°F)

Manual Release Cables: High temperature, fire resistant manual release cables for manual system discharge; install one at each helm station and one at the engine room exit

**Engine Shutdown Controls:** Automatically shuts down engines, generators, blowers and dampers upon system discharge; 3, 5 or 8 circuit shutdowns available, 12VDC or 24/32VDC

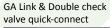


**Mounting Brackets:** Stainless steel, extra heavy duty, vibration tested mounting brackets; three per cylinder

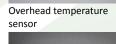
#### HFC-227ea (FM-200) or Novec 1230 Clean Agent:

Both agents approved for normally occupied areas; worldwide accepted clean agent with zero ozone depleting potential.











Engine shutdown control



Discharge manifold



High-temperature manual release discharge cable



1

Dual release adapter

USCG Approved

• FM Approved

# **SELECTING THE PROPERTY SYSTEM**

- Calculate the gross engine room volume by measuring the length, width and height
- The gross volume MUST be used unless the boat manufacturer has attached a decal stating the volume of the fixed tanks to be deducted
- Use the "Maximum Volume Protected" column on the chart (below) to determine the model number needed
- Determine the lengths of stainless steel hose needed (GA Link)
- Select the lengths of Manual Release Cables needed by measuring from the control valve on the cylinder to the mounting point of the tee-handle, including the bends, for both helm station and exit door
- Choose an Engine Shutdown based on the number of circuits that need to be shutdown, 12VDC or 24/32VDC

## **MODEL NUMBER BASED ON VOLUME**

Model Code	Agent Weight (per Cylinder)		Number of Cylinders	Diameter	Total Height	Maximum Volume Protected		Gross Weight (per Cylinder)		U.S Coast Guard Approval No.
	(Kgs)	(Lbs).		(mm)	(mm <mark>)</mark>	Cu. M	Cu. Ft	Kgs	Lbs	
GA-1600-227	15.7	34.6	2	254	665	45.3	<b>1</b> 600	31.3	68.8	162.029/240/0
GA-1700-227	16.7	36.7	2	2 <mark>54</mark>	665	48.2	1700	32.2	70.9	162.029/240/0
GA-1800-227	17.7	38.9	2	25 <mark>4</mark>	665	51.0	<mark>180</mark> 0	33.2	73.1	162.029/240/0
GA-1900-227	18.7	41.0	2	25 <mark>4</mark>	665	53.8	<mark>19</mark> 00	34.2	75.2	162.029/240/0
GA-2000-227	19.6	43.2	2	254	665	56.7	<mark>20</mark> 00	35.2	77.4	162.029/240/0
GA-2100-227	20.6	45.4	2	254	823	60.2	<mark>2</mark> 100	39.1	<mark>85.</mark> 9	162.029/240/0
GA-2200-227	21.6	47.5	2	254	823	62.3	2200	40.0	88.1	162.029/240/0
GA-2300-227	22.6	49.7	2	254	823	65.2	2300	41.0	90.2	162.029/240/0
GA-2400-227	23.6	51.8	2	254	823	68.0	2400	42.0	92.4	162.029/240/0
GA-2500-227	24.5	54.0	2	254	823	70.8	2500	43.0	94.6	162.02 <mark>9/240/0</mark>
GA-2600-227	25.5	56.2	2	254	823	73.70	2600	44.0	96.7	162.02 <mark>9/240/0</mark>
GA-2700-227	26.5	58.3	2	254	823	76.5	2700	45.0	98.9	162.0 <mark>29/240/0</mark>
GA-2800-227	27.5	60.5	2	254	823	79.3	2800	45.9	101.0	162.029/240/0
GA-2900-227	28.5	62.6	2	254	823	82.2	2900	46.9	103.2	162.029/240/0
GA-3000-227	29.5	64.8	2	254	823	85.0	3000	47.9	105.4	162.029/240/0

## SYSTEM OPERATION

- Four temperature sensors, two located overhead and one on each fire extinguisher cylinder, continuously monitor ambient engine room temperature
- When the temperature reaches 79°C (175°F) or 68°C (155°F) at any of the sensors, both cylinders discharge within a fraction of a second of each other to completely flood the entire area with HFC-227 ea extinguishant
- System can be discharged manually by using up to three manual discharge cables
- The pressure switch on the extinguisher control valve will actuate the engine shutdown control and will shut down all engines, blowers and inlet dampers
- Once the GA system is completely installed, the system is activated by unlocking the safety lock poppet valve

2