## Offshore Support Vessels

Complete OMPV Fire Suppression & Containment Solutions







# Single source fire and safety solutions in port, at sea and in the dockyard

The expertise and experience of Johnson Controls within the oil & gas/marine industry is unparalleled and we remain at the forefront in this highly specialised area. Our track record in the protection of Offshore Support Vessels for a wide range of offshore operators, speaks for itself. That is because we recognise that the cost and complexity of Offshore Support Vessels means that they are required to have a multi-task capability. With these facts in mind, we can provide every form of fire protection imaginable.



### 1 Process Decks & Helidecks

We can provide a wide range of fire suppression agent and equipment to prevent, contain, and extinguish a fire throughout the entire ship's cargo area. These agents and systems also protect and provide safe refuges for the ship's crew on the ship's bridge and within the accommodation areas.

- Dry chemical and twin agent skids
- High, medium and low expansion foams
- Foam generators
- Foam monitors
- Hand portable & wheeled extinguishers
- DIFFS (Helidecks)



### **Dry Chemical Systems**

Mobile or fixed self contained dry chemical systems combine the flexibility and suppression power to combat potentially large flammable liquid Class 'B' type fires.

#### **Foam Monitors**

Additional fire fighting flexibility can be provided with our range of fixed or oscillating AFFF – FFFP foam monitors. These monitors have the discharge power to provide rapid fire 'knockdown' within the entire cargo deck area.

### Living Spaces and Working Areas

A small fire can quickly develop into a high intensity fire that could quickly endanger the safety of the ship and its crew. With these facts in mind, we have designed and developed a wide range of International Marine Approved systems for both life and fire safety protection within vulnerable living spaces and working areas.



High expansion hot foam discharge & the marine detection panel range

### Novec<sup>™</sup> 1230 Gaseous Fire Extinguishing System

Novec 1230 is supplied in lightweight cylinders with a small footprint that requires minimal storage space. Novec 1230 fluid has a boiling point of 49oC and therefore exists as a liquid at room temperature. It is super-pressurised with nitrogen to 25bar and rapidly extinguishes a fire through a combination of heat absorption (its main action) and some chemical interference with the flame.

Although stored in liquid form, Novec 1230 fluid will vaporise easily upon discharge, making it an effective total flooding agent for a variety of hazards. As a clean agent, it leaves no residue and is therefore ideally suited for Marine applications where high margins of safety and long term sustainability are considered as important features.

### 3 Fire Detection & Alarm

We can provide a wide range of conventional and addressable fire control panels and initiating devices to protect the 'Ship's Bridge' and crew accommodation areas.

Utilising the latest technology, they can detect a fire in its earliest stages to prevent a small fire from developing into a high intensity fire with the potential to spread to vulnerable high risk areas of the vessel.

Tyco Expert Graphics (TXG) is a Microsoft Windows® based graphical interface with a high resolution colour display. Responsive touch-screen (optional) buttons with realistic icons provide control switches specific to the operation being performed. Utilising a combination of symbols, floor plans, pictures, text, voice messages and video input, TXG displays the precise location and gives instructions on what emergency action should be taken.

### 4 Galley Fire Suppression

A galley fire can be highly dangerous. It can quickly spread and turn a galley into a blazing inferno. The Ansul R102 systems uses a specially formulated aqueous solution of organic salts designed for fast 'knockdown' and suppression of grease related fires. Agent storage life expectancy is twelve years.





### **Machinery Spaces**

The type of fire protection system installed within machinery spaces is determined by the size of the machinery space, the equipment within it and its hazard classification. Johnson Controls has a wide range of foam, gaseous fire suppression and water based products to combat any fire risk imaginable.

### 5 CO<sub>2</sub> Gaseous Fire Suppression

Carbon Dioxide is the original "clean" agent that is traditionally used for marine 'Total Flooding' applications to suppress fires in unmanned areas involving deep seated Class A fire risks.

We can provide High Pressure cylinder systems and Low Pressure tank systems for the protection of engine rooms, pump rooms, machinery spaces and cargo holds. It is essential that all personnel be trained on  $\mathrm{CO}_2$  systems to ensure their safety. They must be warned not to enter the hazard area during discharge, or until the area is cleared.

### 6 Low Pressure Water Mist Systems

We offer a variety of 'Local Application' and 'Total Flooding' Low Pressure Water Mist systems. These systems are an extremely cost effective and an efficient method of containing a suppressing high intensity fires within small to medium volume areas. These areas include ship's engine rooms, generator rooms and boiler rooms.

### 7 High Expansion Hot Foam

This type of foam has an undeniable track record in vapour suppression and fire control. Using a synthetic foam concentrate, high expansion hot foam generators are highly effective in fighting three dimensional fires within high volume areas.

Because high expansion hot foam generators require minimal amounts of water to produce large amounts of foam, moisture damage is minimised, the potential water run-off is limited and greater use in and around electrical or electronic components is possible. Post fire residue is also very easily cleaned.





# Unrivalled knowledge and expertise in fire safety

Our expertise range of products and systems combined with our special marine expertise, ensure that Johnson Controls is truly the one source that you will ever need to protect people and ships from fire. Also, because we operate in over 100 countries and hold nearly every international marine approval, we can perform your work wherever you need us. At port, at sea and in the dockyard, one call is all it needs.

### Assets we help to protect

- · LNG / LPG vessels
- Tankers
- Container vessels
- Tugs & fire fighting vessels
- RO-RO passenger vessels
- Mega yachts
- Cruise vessels
- Naval vessels
- FPSO's

### How we operate

- Manufacturing and product development to ISO 9001:2000 standards
- Application engineering develops innovative solutions with a customer focused approach
- Our multi-disciplined marine consultants and project management teams are co-ordinated across countries with a single point of contact
- Installation and commissioning is performed in port, at sea or in the shipyards
- Our service and maintenance strategy is based on support from people and 24 hour parts warehouses located at strategic points around the world to provide assistance when needed.



### Global Strength

Local Expertise. At your service.

## Other Marine Fire Suppression & Containment Solutions Include

- · Oil & chemical tankers
- Cruise ships
- LNG carriers
- Offshore support vessels

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