

# Fire, safety & damage control systems

Marine overview

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The power behind **your mission**





# Protecting 25 of the world's Naval Armed Forces

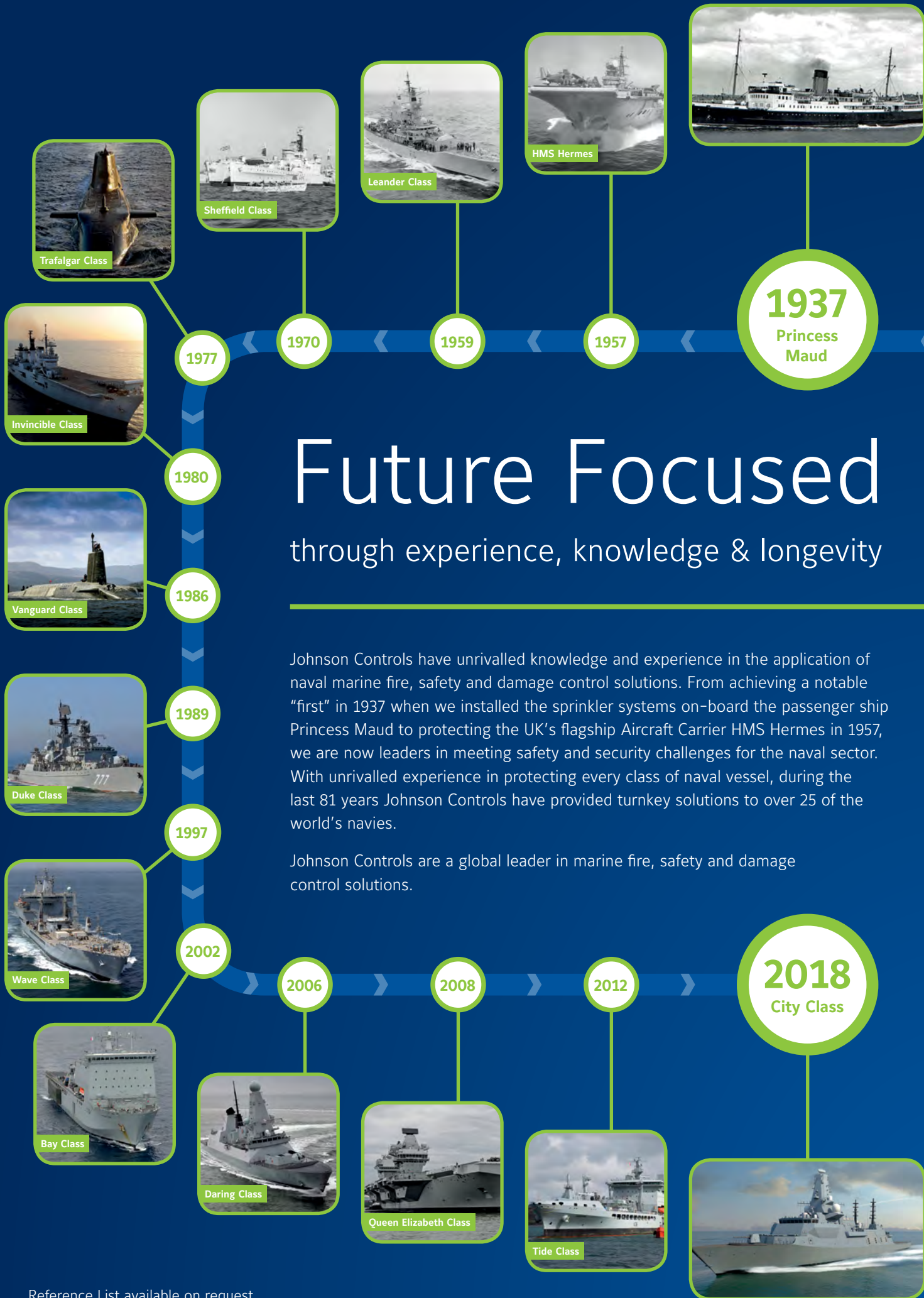
## We design, manufacture, install, service & maintain

With experience that can be traced as far back as 1852 and one of the world's largest portfolios of marine fire, safety and asset integrity solutions, Tyco (now Johnson Controls) is a leader in meeting safety and security challenges for the Naval Marine market.

We are passionately committed to helping customers improve safety and asset integrity. As such Johnson Controls helps protect Naval Vessels in more than 25 countries around the world. This ranges from the latest generation of Nuclear Powered Submarines to the innovative QEC Aircraft carriers and Future Surface Combatants. With Naval Marine Centres of Excellence in the UK, Johnson Controls has many years' experience in providing reliable & robust safety and asset solutions.

## What we can do...

- Turnkey Solutions
- ILS – Integrated Logistic Solutions
- Through Life Support, Maintenance and Services



# Future Focused

through experience, knowledge & longevity

Johnson Controls have unrivalled knowledge and experience in the application of naval marine fire, safety and damage control solutions. From achieving a notable “first” in 1937 when we installed the sprinkler systems on-board the passenger ship Princess Maud to protecting the UK’s flagship Aircraft Carrier HMS Hermes in 1957, we are now leaders in meeting safety and security challenges for the naval sector. With unrivalled experience in protecting every class of naval vessel, during the last 81 years Johnson Controls have provided turnkey solutions to over 25 of the world’s navies.

Johnson Controls are a global leader in marine fire, safety and damage control solutions.

# The Queen Elizabeth Challenge

Johnson Controls advanced multi system integration from its own product portfolio and in house engineering expertise delivers the latest in innovation and technology.

The key challenge faced by our systems design teams was to provide a bespoke 21st century Fire Suppression & Detection package for the largest RN vessels ever built. All the systems had to be integrated into a fire protection network, which enables fast flow information and control of all systems.

JCI are the only company able to provide multi system integration from its own product portfolio with in-house Engineering expertise.





## Marine Technologies & Solutions

### Water Based Systems

- Aqua mist (accommodation)
- Medium velocity spray
- Quartzoid bulb spray
- Rapid reaction spray
- Chemical workforce spray
- Local application mist

### Water/Foam Based Systems

- Waterspray/foam
- Fine water spray/foam
- Flight deck foam
- Deck foam
- Water mist/foam

### Fire Detection Systems

- Emergency door hold back
- Flood detection
- PAGA
- Conventional
- Digital addressable
- Detectors combined (CO & Heat or Smoke)
- Carbon monoxide detectors
- Break – glass call points
- Electronic sounders beacons

### Gaseous Extinguishing Systems

- INERGEN
- Carbon dioxide
- NOVEC 1230
- FM200

### Security Systems

- CCTV
- Access control

### Fire Protection Network

- Human machine interface
- System integrated
- Control units
- PLC
- Local release panel(s)



# Project experience

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## Capabilities

- Royal Navy Queen Elizabeth Class Aircraft Carriers
- Royal Navy Frigates City Class
- Royal Navy Type 45 Destroyer Daring Class
- Royal Navy Nuclear powered Submarine Astute Class
- Royal Fleet Auxiliary Tide Class
- Norwegian Logistics Support Vessel
- Royal Malaysian Navy Littoral Combat Ships
- Oman OPV Khareef Class
- Brazil OPV Amazonas Class

## Global experience for every class

## Turnkey services

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- On-board survey and safety case reviews
- Conceptual, feasibility, consulting and pre-engineering studies
- Project management
- Detailed design manufacture and installation of new systems and upgrades
- Full turnkey contractual responsibility and delivery
- Commissioning and certification
- Through life service and healthcare contracts and 24 hour support
- Inspection and testing

# Global Strength

## Local Expertise. At your service.

Combining the experience and expertise of our Centre Of Excellence for Naval applications, together with our global footprint. We aim to deliver 50% local industry content on all Naval project requirements.

### Our Commitment

Johnson Controls is fully committed to through life support of Naval Vessels. Our systems are designed, installed and serviced to the highest standards in order to provide robust solutions for navies around the world 24/7 / 365 days of the year.

### Johnson Controls Marine Locations

Centre of Excellence - UK

Europe	Asia
France	Hong Kong
Germany	S. Korea
Holland	China
Norway	Singapore
Pacific	N. America
Australia	USA
	Canada
	S. America
	Brazil

For further information please contact: United Kingdom COE Manchester on **+44 (0) 161 455 4400** or email **bts.naval@jci.com**



[www.johnsoncontrols.co.uk](http://www.johnsoncontrols.co.uk)

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