

# DESMI 'Wholeship' pump packages for Aircraft Carriers

Queen Elizabeth Class and Prince of Wales - Aircraft Carrier

DESMI were approached in the early stages of the ship design, which was headed up by BMT Defence Services, and we were asked to look at the ship's AVCAT fuel pumps for the distribution system, together with the many other pumps the ship would require. Many meetings took place with what became the Aircraft Carrier Alliance Team, which included the Shipyards, Main Contractors and the UK Ministry of Defence, which were both of a technical and commercial nature.

Many options were considered by what became the 'ACA' as to how pumps would be purchased for these ships - either individual manufacturers, or using a company who had the capability to provide a 'Wholeship' pump package.



Queen Elizabeth Class - Aircraft Carrier

CASE STORY



The latter was chosen and DESMI was down selected as having the 'best engineered solution as to being the Wholeship Pump Integrator'

Over 160 pumps have been supplied for each ship to date, covering all aspects of the ship's pumping requirements, including:

- High Pressure Sea Water for Fire Fighting, Cooling, Ballast, Bilge, Salvage, Gas Turbine, Diesel Engine and Aircraft Fuel, Lubricating Oil and Salvage, being accommodated using centrifugal, internal gear, sliding shoe and multi-piston pumps.

Contracts for both Ships 01 & 02 were placed with DESMI in July 2008, and became the largest marine order obtained by DESMI in the history of the company at that time.

The story will continue for many years as we enter the next stage in the through life of these ships,

where DESMI will be asked to support its products with spare parts, retro-fit whole pump units, together with service for the foreseeable future.

## Fact Box on The Queen Elizabeth class

**Name:** Queen Elizabeth class aircraft carrier  
**Type:** Aircraft carrier  
**Displacement:** 65,000 tonnes (64,000 long  
**Tons:** 72,000 short tons)  
**Length:** 280 m (920 ft)  
**Beam:** 39 m (128 ft) (waterline) 70 m (230 ft)  
overall  
**Draught:** 11 m (36 ft)  
**Decks:** 16,000 m<sup>2</sup> (170,000 sq ft) 9 decks  
beneath flightdeck with hangar covering the  
centerpiece of two decks (without islands)