

HMAS Success & LPA Class Ships Watermist System

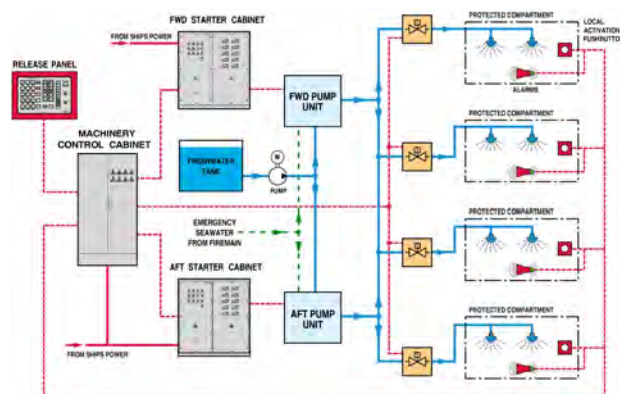
Design, Installation, Operating & Maintenance Documentation and Spares

Date: August 2007 to January 1010

Client: Australian Navy

Project Summary: SOFRACO provided the Detailed Design, Installation and Technical Documentation for the Watermist System on HMAS Success and the LPA Class Ships.

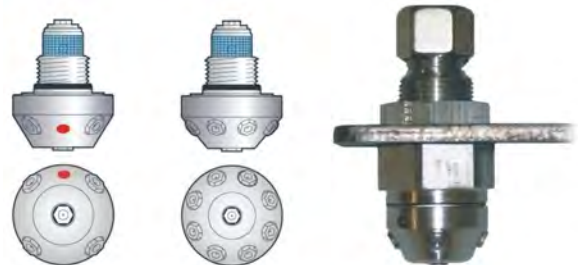
The Watermist system operates by providing high pressure water (140 bar), via high pressure pump units, to a network of section valves and spray heads fitted into each of the protected spaces. The system is activated by pushbutton operation from local activation pushbuttons within each protected space close to an exit, or remotely from any one of the release panels. Watermist may also be activated by manual control of the section valves that control water flow into the protected spaces.



Watermist Schematic – HMAS Kanimbla

The integration of the Watermist System in to existing ships systems involved a large number of technical personnel, the running of thousands of metres of stainless steel pipe work, power cables and control cables, along with the installation of hundreds of spray heads positioned in bilges and in overhead locations.

The specially designed spray heads cause the water to enter the space as fine (fog) at high speed. The small droplets yield a very large total water surface area, providing efficient cooling of the fire and surrounding gases. The high speed of the small droplets enables the fog to penetrate hot flue gases and reach the combustion source, even in large, hidden fires.

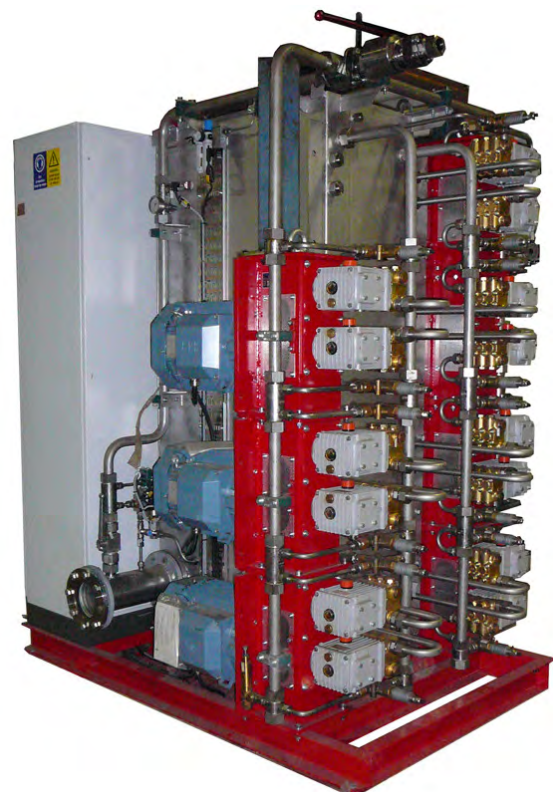


Watermist Spray Heads

Each ship has two Watermist pump units, one fwd (PU1) and one aft (PU2) which provides 100% redundancy.

Immediate supply of fresh water to the Watermist system comes from the local 'break tanks'. This is replenished from a dedicated fresh water tank and the ships fresh water supply. Sea water can be used if there is no fresh water available.

On the LPAs, to meet DNV Class Society regulations, foam is provided through the Watermist system in to the bilges.



Typical Watermist Pump Unit

The installed Watermist System is the Marioff Hi-fog™ system that is approved by both BV and DNV Class Societies.