Client
The client performs complex ship and submarine asset management and repairs

Location
South of England

Hire Partner
Speedy

Featured Product Range:

Ventex Ventilation Solutions

Ravex Fume Control

Specialist Hazard Control Solutions Kept Workers Safe From Paint Fumes During Navy Ship Repairs

Project Overview

This particular project required RVT's specialist hazard control solutions whilst work took place on one of the most versatile warships, a type 23 frigate. This warship plays a key role in protecting our nation's interests, from policing vital trade routes to supporting humanitarian aid missions.

The overall goal was to restore the ship so that it can operate well beyond its original design life expectancy.

Challenge

Two thirds of the outer hull had been painted, when an improvement notice was issued base-wide for the activity of spraying. It stated that improved controls would be needed for the extraction and filtration of the paint fumes, due to the possible ill-effects to those carrying out the activities and those working nearby. The previous system used was identified as inadequate.

At short notice, RVT was called upon by the client's chosen hire partner, Speedy Customer Solutions, to survey the space and to work with the Support Service Controller to understand the specific hazard, the environment and the work process. RVT then recommended a bespoke hazard control solution.

- RVT provided an end to end service. We surveyed the requirements, designed a system, supplied and installed the solution, and revisited the site to commission the equipment
- The equipment used for this project is ATEX rated, meeting the safety requirements for use in an explosive atmosphere
- The Ravex Superfilta uses cylindrical Actisorb carbon filters to effectively and safely extract odours and paint fumes
- Negative pressure extraction ensures that there is zero fume migration into adjoining rooms and surrounding environments

The 3C's® is a proven methodology, devised by the RVT Group, to ensure effective control of fumes on site

Solution

The RVT Group recommended a hybrid solution of high volume extraction and filtration using activated carbon cartridges. The Aft end of the ship was provided with extraction to atmosphere (outside of the complex an exclusion zone was created). All extraction equipment was ATEX rated.

RVT provided a total air movement of 26,866m3 p/hour, achieving 3.6 air changes in the entire space per hour. The dock bottom was effectively under a 'negative pressure' meaning that there was no way for fumes to escape the working area and migrate to other areas.

RVT visited the project after the first coat of paint was applied, to ask for feedback. The Support Service Controller was extremely pleased with the result, it over-performed in their eyes, and when the system was tested by their Occupational Hygiene team during the works, they recorded a PPM measurement of 6PPM (Parts per million). The previous system used provided a best recording of 150PPM.

The solution that RVT installed satisfied the health and safety requirements on the base and allowed the activity to go ahead within the customer's deadline.

VENTEX® Centrifugal Fan 300M ATEX
A high airflow ATEX approved centrifugal fan,

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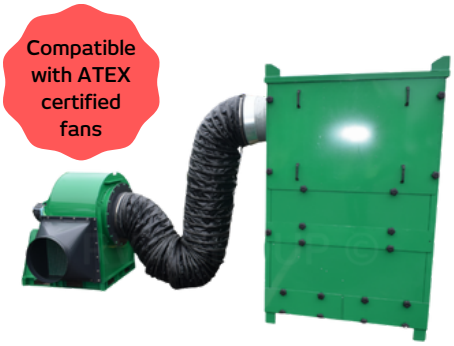

RAVEX® Superfilta
Effective fume control system

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Are you unsure what hazard control solutions you require on site?

BOOK NOW

RVT offers a free site assessment and best practice guidance.