



### Location:

Glasgow, Scotland



### Products Used:



CLIMEX®  
Climate Control



VENTEX®  
Ventilation Control

## RVT Group's Heating and Ventilation Solutions Supports During The Painting Of A Type 26 Warship.

### Project Overview

Our client plays a key role within the building, repair and maintenance of warships for the UK.

This particular project was on a brand new type 26 ship, a multi-mission warship and the first of its kind, designed to protect anti submarine warfare, air defence and general Royal Navy operations.

The ship is still within its building stage, and following various works within many compartments below deck, painting works were due to begin.

### Challenge

The client reached out to RVT Group after it was identified the usual process for drying out paint on ships would not be feasible due to power requirements. At this point, the project was already live during a cold, winter month, and ensuring tight deadlines were met were crucial.

One of the key challenges our client faced was that over 700 compartments required painting. Challenges included the steel needing to be maintained at 5°C to adhere properly, and relative humidity was to be under 55%.

## How to Achieve Effective Heating & Drying-out

The 'Effective Drying Triangle' is a proven methodology devised by the RVT Group.



RVT believe that effective climate control can be managed in three easy steps;

**Warmth-** Heat raises the room temperature and so lowers the relative humidity of the air. This allows the air to absorb more water from surrounding surfaces.

**Air Movement-** Air movement across a substrate draws the water to the surface, where it evaporates.

**Dehumidification-** Dehumidification extracts water from the air, to be transferred from the work area.

### RVT'S Installation:

x6 200kW CLIMEX® Indirect Oil Fired Heaters

x1 150kW CLIMEX® Indirect Oil Fired Heater

x7 VENTEX® 300M Centrifugal Fans ATEX

42m of flexible ducting

1,680m Outlet Hoses

## Solution

Following an on site survey by RVT, we were able to implement an effective heating solution for all 700 compartments on the ship.

Our installation consisted of a range of different CLIMEX® Indirect Oil Fired Heaters, VENTEX® 300M Centrifugal Fans ATEX, outlet hoses, and ducting. This set up was enough to provide warm, dry, heat to the entire ship, and ensured moisture was quickly removed from the air. This solution provided heat to specific areas using long length of small bore hoses, with the heat arriving directly at the target area - One of the benefits of this method, was the ability to slowly increase the overall temperature on board. The hoses themselves acted like a radiator, heating all routes to the targeted compartments. The equipment was based on the jetty, and had 600mm flexible ducting providing huge volumes of warm air into the ship.

We used VENTEX® 300M Centrifugal ATEX Rated Fans to support providing warm air distribution evenly throughout the ship.

We provided an experienced installation team to deliver the initial setup, followed by a rotation of engineers who maintained the equipment and monitored the thermal environments for the duration of the painting project.

Following the implementation of RVT's equipment, we successfully supported the project meeting it's milestone within the requirements set out. We concluded the project by revisiting site for a 'lessons learned' meeting. It was clear that the client was pleased with the performance of the solution and the way RVT understood and reacted to the emergency requirement.

### Equipment Used:



VENTEX® 300M  
Centrifugal Fans ATEX



CLIMEX® Indirect  
Oil Fired Heater