

AMBIRAD

HEATING AND VENTILATION SOLUTIONS

Bond Offshore Helicopters

Case Study

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"This project demonstrates our commitment to delivering first-class services for our customers and continually improving the service we can offer"

"The design and build was run in hand with helicopter engineers, architects and construction specialists"
Says Michelle Handforth, Managing Director.



Michelle Handforth
Managing Director
Bond Offshore Helicopters

Headquartered in Aberdeen, Bond Offshore Helicopters has decades of experience providing energy support and life rescue services to blue chip-corporations in the UK's offshore oil and gas industry. Over 200,000 oil and gas industry staff were transported in 2014 with 57 search & rescue missions across the North Sea.



In recent years Bond has strategically managed its growth and steers its attentions to the key strengths of the business; providing safe, dependable and valuable services to a wide range of offshore and onshore clients. Bond aviation now incorporates two operating companies, Bond Offshore Helicopters and Bond Air Services.

The key strengths of the business were implemented within the design and build of the new hangar suggested for Aberdeen International Airport. The completion of the construction for the new aircraft hangar will see it being used as both a maintenance and storage facility which will keep its mixed fleet of 25 helicopters in top condition for a safe crew-change and search & rescue operations.

Managing director Michelle Handforth added **"This project demonstrates our commitment to delivering first-class services for our customers and continually improving the service we can offer"**

"The design and build was run hand in hand with helicopter engineers, architects and construction specialists."

"We also listened closely to the views of local residents and have incorporated materials into the building which can help reduce aircraft noise."

Hangars are invariably very large interior spaces that have high ceilings, contain a large volume of air and are prone to high air change rates. Large doors are frequently being left open at irregular time intervals due to maintenance shifts in certain parts of the hangar, compromising levels of comfort for employees.

AmbiRad worked exclusively with Hutcheon Services Ltd, the M&E Contractors, on the new radiant heating design. The Nor-Ray-Vac system chosen had a total of 6 x 38LR burners being suspended at 9.3m, above the crane beam, with 1 flue discharge out the rear gable wall. The design layout provides blanket heat coverage of the hangar with rapid heat recovery times, eliminating any cold spots and has a potential fuel saving of 40% over an equivalent warm air system.

With the key strengths of this project in mind, the Nor-Ray-Vac system can be controlled easily to provide varying zoned temperatures at all time; perfect for a comfortable environment within specific areas.

The radiant technology utilised warms floors, surfaces, tools and more specifically the helicopters and rota blades. Additionally it creates the added element of reduced condensation on the aircraft structures, thus creating a massively improved environment.

Installation Summary

- > Bond Offshore Helicopters invested in a Nor-Ray-Vac continuous Radiant Tube heating system for their new Aircraft Hangar at Aberdeen International Airport.
- > Improved working environment, with reduced condensation to the aircraft structure.
- > Rapid heat recovery.
- > Mounted at high level and still able to provide comfort at floor level.
- > Eliminating cold spots has an estimated fuel saving of 40% over equivalent warm air systems.
- > Varying zoned temperatures and operating times.

Technical Summary

- > **Product** Nor-Ray-Vac system installed suspended at 9.3m, above the crane beam.
- > **Heaters** 6 x 38LR Nor-Ray-Vac burners in 2 operational temperature zones.
- > **Controllers** AmbiRad SmartCom³
- > **Dimensions**

Length	42m
Width	45m
Eaves	8.4m
Apex	12.3m
Area	1,890m ²
Volume	19,562m ³

Hangar doors - approx. full width of the gable wall - 42m wide x 7m high.

Overhead crane spanning full width of the hangar at height of 7m





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