

Rubb wins second Bristow order for fabric helicopter hangar

A respected helicopter operator company asked Rubb to design, manufacture and construct a fabric helicopter hangar for operations at the Falkland Islands.

The Bristow Group, established in the UK 60 years ago, was one of the first civilian helicopter transport companies to work in the oil and gas industry. The company offers point-to-point scheduled and charter transportation services. With its international experience and extensive modern fleet, Bristow provides industry leading operational and geographic flexibility. Bristow also specializes in search and rescue (SAR) services.

Bristow needed a hangar to support oil and gas sector transport operations at Port Stanley Airport, Falkland Islands. The company has been successfully using a Rubb hangar at Norwich International Airport since 2010. Bristow bosses decided a similar fabric structure would be the best solution to house three Sikorsky S-92 helicopters at Port Stanley.

The new BVE helicopter hangar facility measures 39.5m span x 45m long x 6m to eaves. It features a 30m wide x 6m high manual sliding door. The hot dipped galvanized steel frame is clad with an inner PVC skin insulated with encapsulated rock wool designed to achieve thermal efficiency as specified in UK building regulations. The outer PVC membrane completes the structure.

Two doorways link from the hangar's left sidewall to Bristow's offices and accommodation. There are two pedestrian/fire doors in the right sidewall and two in the rear gable end of the building.

The high specification electrical system includes 700 lux lighting; a short wave infrared heating system and a mechanical ventilation system, which provides three air changes per hour.

Technical Sales Engineer Andrew Maisalu said: "Rubb overcame various challenges to complete this project including extremely difficult weather conditions, remote site location and limited available access machinery to assist with the installation. However we were able to successfully complete the building, working closely with the local groundworks contractor."

The hangar will be used to service, maintain and store the Bristow's fleet of helicopters. It will also be used to support SAR operations and training exercises.

In the Spotlight: Specialist Electrical Applications

Lighting Installation

Rubb designed the lighting system to achieve an average of 700 lux at 1m above ground level for the designated floor area of the building. 72 400watt metal halide luminaires were mounted in nine rows of eight. The lighting installation actually achieves the following light levels: Average: 751, Minimum: 345, Maximum: 974.

Emergency Lighting

A three-hour, 2 x 18watt emergency light fitting is mounted above each of the four personnel doors within the building. The system is illuminated on mains voltage during normal operation of the building and in the event of a power failure a single 18watt lamp is illuminated via an internal battery module. The initial charge rate for a complete discharged unit is 12 hours.

Heating

The heating system electrical control panel is capable of controlling the heating system in ten zones, with each zone consisting of two 12kw short wave infra-red heaters. The heaters are controlled automatically via factory pre-set, panel mounted impulse relays, set for a four-hour cycle. The control panel also has a full auto/manual mode via a 7day/24hour clock.

Further optional automatic control of the system operates via PIR sensors so that heaters are on only when personnel are present in the area required and also remote control of up to 50 metres line of site. The heating system comprises of 20 12kw 415volt shortwave infra-red overhead heaters, mounted directly from the building steelwork.

Quartz heat infra-red radiant heaters provide economical and instant heat that can be directed exactly where it is required. The heaters work immediately and require no initial warm up period, so they are ideal for use where the need for heat is intermittent. Noiseless in operation and producing no atmospheric pollution, the heaters provide a cost effective, environmentally friendly means of total, local or spot heating.

Ventilation

An automatic/manual mechanical ventilation system provides an Air Change Rate of 3Ach/Hr within the hangar.

Notes

About Rubb Buildings Ltd

Rubb Buildings Ltd is a world leader in the design and manufacture of custom made relocatable engineered fabric structures.

Highlights include ground-breaking military buildings (aircraft hangars, shelters, storage facilities), specialist sports buildings and structures for a variety of sectors including aviation, ports, construction, bulk storage and environmental (waste and recycling).

All products are designed and manufactured at Rubb's UK plant at the Team Valley Trading Estate in Gateshead, Tyne and Wear. The company was founded in 1977 and has a proud history of delivering innovative and quality structures to a wide range of clients.

The Rubb Group also has plants in the USA and Norway.

Rubb Buildings Ltd contact details:

For further information please contact Marketing Manager Clare Wilson on (0191) 482 2211, email c.wilson@rubb.co.uk or visit www.rubbuk.com

