BOC
A Member of The Linde Group

BOC supporting UK aerospace innovation
Case study

Business benefits

- BOC supporting UK Aerospace manufacturing and innovation
- Secure and reliable compressed and liquid helium supply
- Supporting the Airlander's first commercial test flight

Founded in 2007 and a world leader in the 'hybrid' technology of mixing aerodynamic and aerostatic lift, Hybrid Air Vehicles (HAV) have two Grade 2 listed hangars at Cardington, Bedfordshire which serve as the base for both the design and manufacture of the world's first hybrid air vehicle; The Airlander.

Having fulfilled a $500 million US Army contract to develop hybrid aircraft for use in military operations, the company now focusses on the development of its innovative lighter-than-air vehicles for heavy goods and cargo air travel, including the transportation of goods for humanitarian and search-and-rescue missions.

The Airlander range of hybrid air vehicles have been developed to meet two significant aviation needs:

- The ability to stay airborne for days and weeks at a time in order to achieve surveillance, search and survey tasks
- To transport heavy goods and aid point-to-point, without the need for expensive airport infrastructure.

The Airlander utilises lighter-than-air technology to produce a vehicle that operates with less noise, less pollution, has a lower carbon footprint, longer endurance and better cargo-carrying capacity than other forms of air transportation.

In order to complete a successful launch of 'the Airlander's' first commercial test flight, HAV required to partner with a reliable and experienced gas provider to ensure a consistent, quality delivery of helium gas in order for the Airlander to complete its flight.

Why BOC were the ideal gas partner for HAV...

Utilising BOC Helium gas, the Airlander is engineered to gain "free lift" whilst using the controllability gained through having an aerodynamic shape, and having engines that rotate and can direct their thrust in any direction. BOC are the ideal partner for HAV as BOC has access to 25% of the world's commercially available helium, ensuring HAV security of supply and peace of mind. Through investment in a UK helium transfill facility, BOC has more cylinders, liquid dewars, bulk tube trailers and people dedicated to its Helium business than any other supplier in the UK.

The helium used for air vehicles and balloon gas is impure gaseous helium which is produced as a by-product of the process to create pure liquid helium used in applications such as MRI scanners. Impure gaseous helium cannot be used in MRI scanners or other applications that use superconducting magnets.

Stephen McGlennan, CEO of Hybrid Air Vehicles, commented: "We are very excited to be working with BOC as we continue our flight testing of the Airlander in the UK over the coming year. Airlander is one of the largest and one of the greenest aircraft in the world and this fits well with BOC's green transport credentials."

Nathan Palmer, BOC Head of Regional Sales & Marketing commented: "BOC is delighted to partner Hybrid Air Vehicles and its Airlander 10 in developments for its first commercial test flight. For over 40 years we have been working with the world's largest aerospace OEMs and Tier 1 and 2 manufacturers and suppliers, providing industrial and special gases for manufacturing processes via a wide variety of delivery methods from compressed cylinders through to bulk gas and liquid delivery. HAV has a vision to change the future of heavy goods and cargo air travel and we aim to work closely with them to support their ambitious plans."

Stephen McGlennan,
CEO of Hybrid Air Vehicles

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The Airlander range of hybrid air vehicles can be used to transport goods for humanitarian and search-and-rescue missions among other applications

BOC
Customer Service Centre, Priestley Road, Worsley, Manchester M28 2UT,
Tel 0800 111 333, www.BOConline.co.uk

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