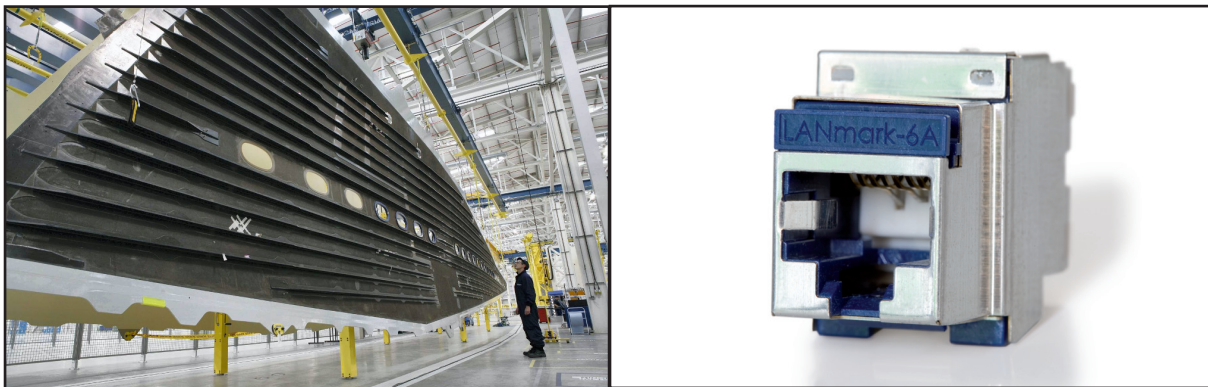


## Nexans takes to the skies with Airbus



Airbus selected Nexans to future-proof the network for its new £400m plant for the A350XWB wing production in Broughton, Wales. The Airbus wing technology developed over the last three decades is among the UK's most significant manufacturing achievements. Nexans offered a complete Structured Cabling Data and Voice System that would provide an upgrade path for future advances in technology.

The British Prime Minister, the Rt. Hon. David Cameron at the official opening of the new facility. Last year the industry generated British sales of £23Billion



## Flying into the future

Britain is the world's second largest exporter of aerospace products. In October 2011, Airbus unveiled its new multi-million pound factory for the A350XWB wing production at Broughton, Wales with Prime Minister David Cameron underlining the importance of the Broughton site to the future of British manufacturing. Last year, the industry generated British sales of £23.1bn, up 2% on 2009.

Bigger than Wembley Stadium, the new factory is one of the largest manufacturing facilities to be built in the UK in recent years and will produce high-tech carbon fibre 'composite' wings for the A350 XWB. Over £3 billion has been invested in the aircraft and its engines by UK aerospace companies in the programme which underpins the key position of the UK as a global centre of aerospace manufacture.

The North Factory assembly line is dedicated to assembling the 31 metre long wings for all members of the A350 XWB Family, which is scheduled to enter service by the end of 2013. With over 567 orders from 35 different customers, the aircraft has set a bench mark within aviation. The Airbus A350XWB will offer up to 25% less operating costs, allowing airlines to transport over 400 passengers across the Atlantic.

With sights set high for the future, the factory required exceedingly high infrastructure standards. Significantly, this required the installation of a future-ready cabling network that would support the high bandwidth and speed required for the technology involved in the production of the high-tech carbon fibre 'composite' wings. The network had to support the factory into the future.

## The wingman

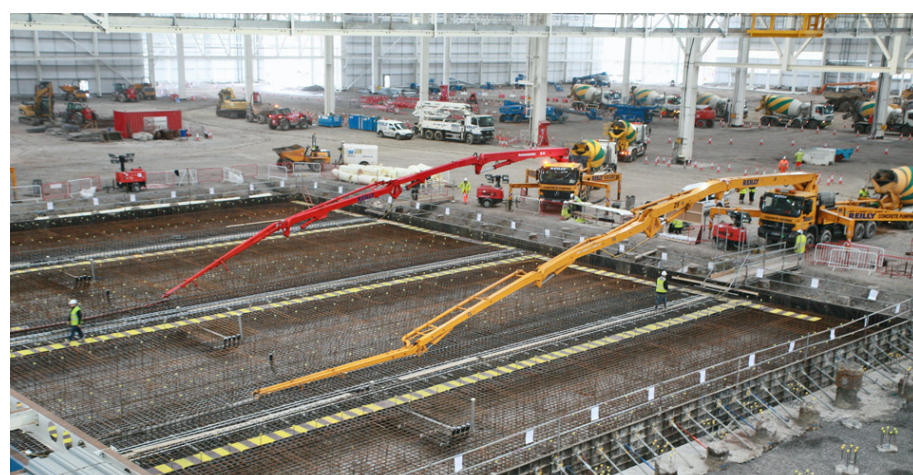
Airbus' preferred Structured Cabling Manufacturer was Nexans Cabling Solutions. With twenty years industry experience, and eight years with Nexans, Certified Solution Partner (CSP), Jade, installed a Nexans Category 6A solution, using LANmark-6A connectivity combined with LANmark category 7 cable that would ensure the necessary systems were in place to future-proof the network.

Stan Hunt, from Jade, explains: "The Jade project delivery team, led by Senior Project Manager Keith Melbourne, were to supply, install and commission a Structured Cabling Data and Voice System using the Nexans cabling solution within the Airbus North Factory, Broughton, which covers a footprint area of 47,800m<sup>2</sup> and a roof height of 24m. The team worked to an exacting standard within tight timescales, whilst adhering to stringent Health & Safety controls and procedures onsite."

Peter Haigh, Business Development and Strategic Accounts Director, Nexans, adds: "Undertaking a complete installation for a project of this scale was an exciting prospect. The British manufacturing industry, and the aerospace sector in particular, is playing a crucial role in the future of the British economy, and enabling the entire cabling infrastructure network to be future-ready for this high-tech environment was a stimulating task".

## The installation

The large scale installation consisted of 110km of Nexans Category 7 copper cable to 1800 data outlets, alongside LANmark fibre connectivity, to support high bandwidth and connection speeds in this high-tech environment.



The LANmark solution ensures 10 Gigabit transmission capability even in an electrically noisy manufacturing environment and provides the facility with multiple service applications for voice, data and video.

“The fully screened Cat 6A system was the ideal solution for Airbus’ new North Factory project, as it supports the demand for high-tech construction methods,” said Haigh. “Continual advancements in the technology sector are a crucial factor for the selection of a solution that offers an easy upgrade path, without the need for re-installation”.

## Challenges to overcome

“Understandably with a vast construction project, the successful completion of the installation was not without its challenges,” says Stan Hunt of Jade. “Possibly the greatest challenge during the installation was working at height with Genie S85 and JLG 800AJ boom lifts”.

“With such a vast building, we were not only working at a height above new wing frames but with extensive vehicle movement of other trades below. These factors caused the installation of the data cabling to be more difficult and time consuming than a standard installation. Careful coordination with all other teams was required and every effort was made to ensure the cabling was implemented with the utmost care and diligence”.

The other main site project hazard was working on a ‘live’ airfield. Nexans and Jade had to ensure that all engineers were airside trained, as one of the single mode fibre links between the North and West factories had a route which ran around, and across, the main Broughton runway.

With the physical products themselves, the demand for colour specific sheathing for fibre standards presented its own challenges. Airbus required the external sheathing colour to be all the same, for clear identification.

“Given the size of the project, the short lead time for production and the tight deadlines involved, Nexans met expectation by working extremely hard to ensure the demand for specific coloured sheathing was met,” said Nick Cartmel, Mobile Voice & Data Manager at Airbus.

“Nexans and Jade completed the network infrastructure installation to an excellent standard, providing a state-of-the-art Structured Cabling Data and Voice System for the North Factory”, said Cartmel. “The installation ensures that the system will meet the bandwidth requirements of any technological advancement. The factory’s network is future-proofed and an upgrade path is ready and waiting in the wings.”

An Airbus spokesperson commented of the project: “The construction of the North Factory facility has raised the profile the Broughton Airbus plant again; enhancing the view of many that the Flintshire Airbus facility is crucial to the economy of North Wales.”



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