

Airbus

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| Complete | Area | Client | Architect |
| 2016 | UK England | Airbus UK | Hollingworth Ellery (UK) |

Airbus is a multi-national aircraft manufacturer. It is also a world leader in wing design, engineering and manufacture.

Its site in Broughton, North Wales is responsible for assembling the wings for all Airbus civil aircraft, including those for the world's largest passenger airliner, the A380.

With over 6,000 staff located at the Broughton factory, it is estimated that over 1,000 wings per year are produced.



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Services provided

Sandy Brown was appointed to provide advice on the refurbishment of an existing flowline support complex consisting of a facility building within a factory hangar into new office space at the site. Key aspects of this included:

- noise measurements of riveting works
- specification of design criteria to be adopted for the refurbishment, including a strategy to limit noise transfer from the flowline area into the offices and other ancillary spaces
- internal sound insulation
- room acoustics
- control of cross-talk via building services systems.

Special acoustic features

Sample noise measurements were taken during riveting works in a flow area. The results were used to establish the minimum sound insulation performance that would need to be achieved for the envelope of new adjacent office space and other ancillary areas. A combination of cladding panels, full height drywall constructions and mineral fibre were used alongside laminated glazing to windows to improve the performance of the existing wall structures.

Sound transmission via the existing roof was anticipated to exceed proposed noise ingress criteria by up to 16 dB. and so acoustic linings were introduced above the suspended ceiling and building services penetrations were treated to reduce noise transmission at high level.