



DELIVERY OF NEW REINFORCED
CONCRETE PITS AND FLOOR SLAB
FOR THE INSTALLATION OF A NEW
AUTOMATED SYSTEM FOR
AIRCRAFT WING PRODUCTION.

DELIVERY TEAM

Hollingsworth Bros
UK Ltd

CLIENT

Broetje Automation
for AUK

VALUE

£5.7M

CONSULTANTS

Eriksen (Germany)
Tier (UK)

DETAILS

Broetje Automation were selected to provide a 'turnkey package' for the delivery of an industry first new a new automated robot system for the production of aircraft wings for Airbus UK (AUK).

Hollingsworth Brothers were recommended by the client - AUK to carry out the groundworks package for Broetje, with a number of successful projects completed in Airbus over a number of years.

The project was located within the existing main factory at Airbus, with wing production either side of the site ongoing, only one existing hanger door for access and egress, and wing dispatch attached to one elevation. Completed wings being stored in the storage yard directly outside the entrance. The proposed design covered the entire footprint of the site meaning there was no additional working room for the construction to be carried out.

We were involved from an early stage, with the final design still being worked on.

The impact this project had within the existing production environment had the potential to be detrimental on the ongoing wing production. When planning and carrying out the works the methodology was of primary concern. With this in mind we implemented a number of systems to ensure successful completion. This involved using a mist air system to prevent any dust becoming airborne and entering the production areas, fitting exhaust filters to the plant which required it, continuous measuring of the air quality, noise monitoring, dust monitoring, vibration monitoring. This data was collated and presented to the client each week to clearly demonstrate our strict procedures to ensure their business was not affected.



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The early involvement allowed numerous meeting with Airbus management, the Union Representatives and workers to encourage them to understand what we had to do to achieve the required works. They could also see the measures we had in place to minimise the impact on them and we encouraged them to see the systems we had implemented to ease their concerns.

We had extensive involvement in the assistance to ensure the completed design would fit within the existing footprint, soils analysis proposals and testing. A large amount of unknown existing services were found, traced and isolated. This included communication/data cables, electric cables, water mains, compressed air, fuel lines, petrol interceptors and two fuel tanks, one of them requiring a 1000m³ excavation and re filling.

We provided extensive survey information and assisted in the temporary works which included retaining the factory floor out of the work area and an office block to the entire length of one elevation. This required 450m of sheet piling to be installed to the perimeter to allow the excavation of the pits to be carried out.

Our works involved;-

- the removal of the existing factory floor.
- reduce dig, installation of a piling matt.
- Installation of approximately 450 CSA piles – up to 24.5m deep with 11m height of the existing factory.
- Reduce dig and installation of reinforced concrete pits to form the 21 stations of the new production system and cross transfer crane bases.
- Surface Water and Foul Water diversions.
- Removal of 2000m³ of hazardous waste, 10,000m³ of inert/non hazardous waste.
- Importation of 12,000 tonnes of MOT, approximately 5000m³ of concrete for the pits and floor slab.
- Daily meetings with the client, main contractor and other sub-contractors to ensure efficient working for all parties.

CLIENT SATISFACTION

All works were carried out with minimum disruption to Airbus who continued to carry out their business next to our works while we completed the construction.

The final design was late and we had major design changes mid way through construction which we accommodated.

This involved extensive periods of 24hour working .

We have had excellent feedback from both Broetje Automation and Airbus, a copy of Michael Krause's (project Manager for Broetje) feedback form is attached.





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