



Storage Tank New Builds - Case Study



Unit Birwelco's dedicated storage tank division provides a comprehensive range of services for fixed and floating roof storage tanks, from one-off repairs and modifications to major refurbishments and full-term maintenance.

- ① Annular plate replacement
- ① Refurbishment of tank foundations
- ① Removal and replacement of tank floor, roof and shell plates
- ① Hydraulic tank jacking
- ① Pontoon and centre deck replacement
- ① Tank cleaning

We also offer comprehensive design, engineering services and fabrication for pipework and associated engineering with 1,600 sqm of workshop facilities and 8,500 sqm of storage and laydown areas.

Regardless of project size, or whether single or multi-discipline work scope, our focus on innovative design solutions, health and safety and zero-incident strategies, delivers tangible efficiencies, cost savings and mitigates both known and unforeseen risks.

Our experienced and qualified API/EEMUA staff can also offer advice and unique repair solutions in line with British, European and American code requirements.

Our qualified project managers, engineers and construction professionals provide clients with an integrated team with a broad skills base but common purpose.

We work across a range of sectors, including:

- | | |
|------------------|----------------------------|
| ① Oil and Gas | ① Food |
| ① Pharmaceutical | ① Chemical & Petrochemical |
| ① Power | ① Energy |



CONTACT For more information contact:

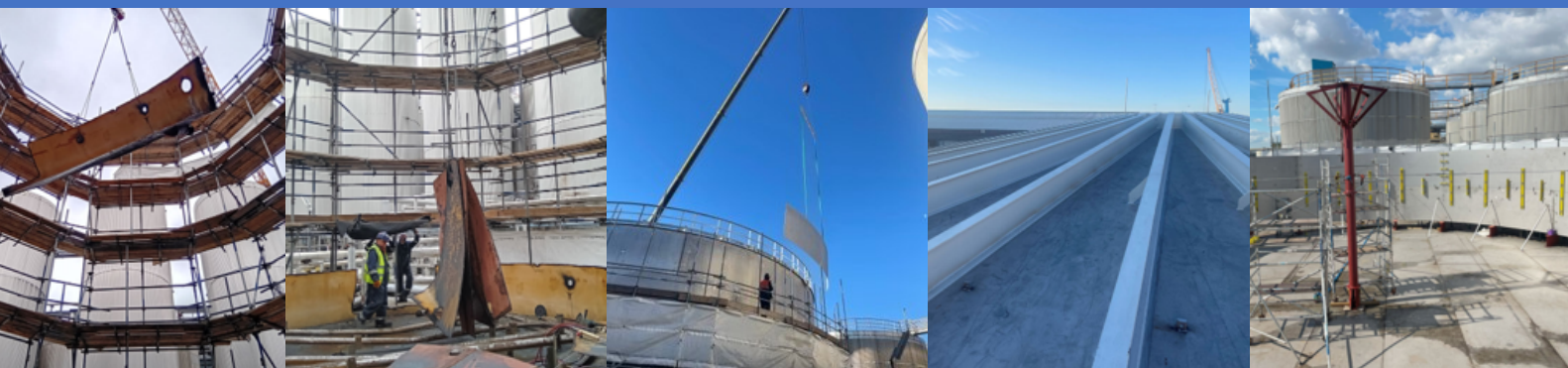
Dave McIntyre on:

Tel: +44 (0) 01469 540478

Email: d.mcintyre@unitbirwelco.com



Storage Tank New Builds - Case Study



UnitBirwelco's Unit Engineers & Constructors Storage Tank Division has been appointed as the Principal Contractor for an ongoing storage tank replacement project in East Yorkshire, UK. The project involves the replacement of two existing carbon steel storage tanks—a 3000T tank (21.5m diameter x 10m high) and a 500T tank (7.5m diameter x 13m high)—with new tanks of identical size, constructed from 304L stainless steel. The project is scheduled for completion in May 2025.

The replacement tanks are being designed in accordance with EN14015 standards and include an internal heating coil and full insulation to maintain optimal product temperature. The design, coordination, project management, and pre-fabrication are being carried out at UnitBirwelco's South Killingholme fabrication facility, ensuring streamlined delivery and installation. Due to the fast-tracked nature of this project, precise scheduling and execution were crucial.



Demolition of the existing tanks took place in the summer of 2024. The larger 3000T tank was removed using a mechanized cutting process, with a large tracked machine cutting it into small sections. The smaller 500T tank, located in a more congested area, required a controlled demolition approach using oxy/fuel cutting. The site team carefully lifted out the cut pieces with a tower crane to ensure safety and efficiency.

Client Benefits

- Enhanced durability with stainless steel construction.
- Efficient temperature maintenance with insulated internal heating coils.
- Optimised design to prevent contamination and bacterial growth.
- Safe, high-quality construction adhering to EN14015 standards.



CONTACT For more information contact:

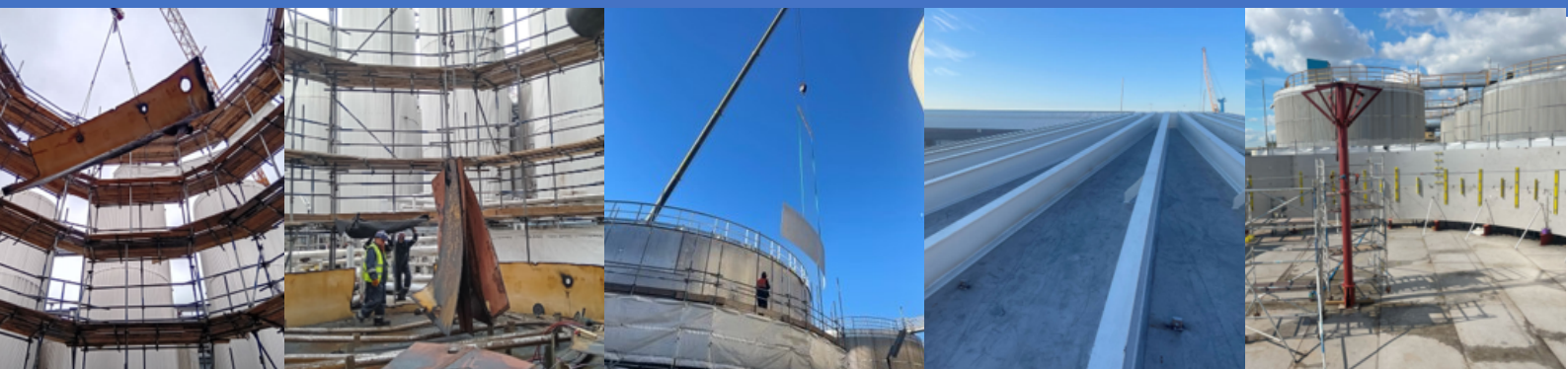
Dave McIntyre on:

Tel: +44 (0) 01469 540478

Email: d.mcintyre@unitbirwelco.com



Storage Tank New Builds - Case Study



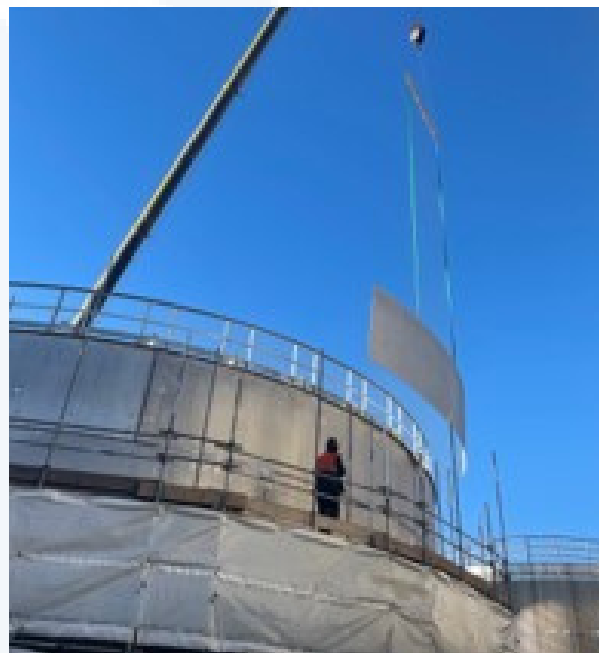
UnitBirwelco's Storage Tank Division has been a leader in high-quality engineering, successfully delivering complex industrial projects. The ongoing storage tank replacement project in East Yorkshire, UK, scheduled for completion in May 2025, exemplifies the company's expertise and commitment to excellence. As the Principal Contractor for this CDM-designated project, UnitBirwelco has overseen demolition, design coordination, project management, fabrication, and construction of two large storage tanks.

500T Storage Tank

- ① Construction commenced in March 2025 after laying a new Bitsand base layer.
- ① A low-level 'D' sump was integrated within the floor plates to enhance drainage and functionality.
- ① Due to the challenging plant location, a mobile tower crane was utilized for assembly.
- ① The tank consists of seven tiers, with the top three tiers and the roof assembled first.
- ① The remaining structure was built using the jacking method, an efficient and safe technique that reduced high-altitude work risks.

3000T Storage Tank

- ① Work began in August 2024 after installing a Bitsand base layer, ensuring a stable foundation for the tank.
- ① Shell plates were lifted into place using a crane and positioned on stilts to prevent ferrous contamination.
- ① Stainless steel and coated steel tools, equipment, and welded plate attachments were used to enhance durability and prevent rusting, even in harsh weather conditions.
- ① The roof was designed with a petal segment approach to minimize bacterial growth and maintain high hygiene standards, while a hydraulic tank jacking system enabled safe and efficient winter construction.
- ① The QA/QC team conducted continuous inspections, including radiography and welding quality assessments, ensuring compliance with engineering standards.
- ① A 3-inch stainless steel heating coil, pre-fabricated at UnitBirwelco's North Killingholme facility, was installed on-site under strict quality checks.



CONTACT For more information contact:

Dave McIntyre on:

Tel: +44 (0) 01469 540478

Email: d.mcintyre@unitbirwelco.com