

CHP Biomass Plant

Location: Cheshire, UK

RMDK System: Formwork

Case Study

Once complete this will be the largest CHP biomass plant in the North West of England

large-scale fuel store, with 6.7m high and 22m long retaining walls

A combined heat and power (CHP) plant is currently under construction by Stobart Developments and Burmeister & Wain Scandinavian Contractor (BWSC), in Widnes, Cheshire.

Due to some of the challenges on site, Stobart Developments turned to RMD Kwikform to provide a range of formwork and shoring solutions to construct a multitude of super structure and sub-structure works. As the plant is due to be in operation in early 2017, and with all works being constructed simultaneously, coordination and collaboration is essential.

Kevin Smith, project manager at Stobart Developments said: “This is a very important project; on completion it will be the largest biomass waste wood to energy producing plant in the North West of England. We’re currently constructing the fuel store, service building and turbine building; due to the close proximity of various works on site, we needed a solution that would enable the site team to work productively and safely.

“We chose to work with RMD Kwikform as we could reuse the kit and maximise its usage for various elements of the project, which has helped us to coordinate deliveries and reduce storage space, saving us time and money.”

Stobart Developments worked with RMD Kwikform’s Haydock branch from the inception of the project, designing multiple solutions to construct the various buildings on site. RMD Kwikform’s Maxima panel formwork was supplied for retaining and upper walls; Minima panels for the sub-structure works, and Alshor and Alstair for access and soffit support.

The largest element of the project currently under construction is the large-scale fuel store, with 6.7m high and 22m long retaining walls. Using Maxima Panels, the super structure concrete walls are being cast in a four stage pour sequence, with the shutters being reused twice for each wall, allowing the site team to construct the reinforced concrete slab after each sequence.



Alongside a multitude of ongoing works, one of the key challenges was the boiler building. Installed in December 2015, the 125 tonne boiler is positioned inside a steel structure. Stobart Developments and RMD Kwikform had to overcome interface challenges in relation to how the site team executed the concrete works. With other subcontractors working on one side of the building, Stobart Developments constructed the other three sides concurrently using RMD Kwikform's kit.

The basic sub structure works on the project consisted of burning down piles, and then introducing pile caps on top of the tubular steel piles, utilising Maxima and Minima panel formwork. Following on are the ground-beams, ground floor slabs, associated pits, and then super structure concrete walls.

Kevin Smith continues: "We have over 70 people on site, solely from Stobart Developments, along with many other people from other subcontractors; it was vital that we got the sequence and logistics right to manage this project efficiently. We worked very closely with RMD Kwikform in designing and redesigning solutions in line with changes on site; their locality, technical expertise and equipment versatility is accountable for the success of this project to date."

Dermot Donelon, RMD Kwikform Sales Representative from Haydock branch, said: "Due to the size and the intricacies of this project, I visit the site two or three times a week. With our regional branch in Haydock, we're able to supply all of the equipment to the site; it has helped ensure kit deliveries are managed effectively, and any design changes or challenges can be rectified almost immediately.

"The CHP Biomass Plant project demonstrates the versatility of RMD Kwikform's kit; the maxima panels are being used to cast a whole host of concrete structures across the entire project, the site team is pouring concrete every day. We've also supplied Ultra Guard edge protection and our new Alstair system for integrated and safe access across all levels of the project."



Want to know more about this project?

Contact:

Ian Edwards

UK Marketing & Business Development Manager

Email: ian.edwards@rmdkwikform.com

UK Head Office

Foundation House, Brickyard Road, Aldridge, Walsall, WS9 8BW

Tel: +44 [0]1922 743743

Email: info@rmdkwikform.com

www.rmdkwikform.com