

CASE STUDY - Ridham Docks Biomass Plant

Stanton Bonna bespoke Cable Troughs protect against unstable conditions



Project:

Ridham Docks Biomass Power Plant
Cable Protection

Brief:

Protection needed for 185 linear metres
of 132kV cabling around site perimeter

Product Supplied:

Bespoke 1000 x 1000 Cable Troughs

Key Benefits:

- Strength
- Durability
- Modular sections
- Easy to install
- Technical support

A durable, secure solution was required to help protect cabling in awkward ground conditions, at a new Biomass Plant near Sittingbourne in Kent.

MVV Environment Ridham, an English subsidiary of MVV Energie, began the £118M construction at Ridham Docks in April 2013.

The plant will generate green electricity from old and waste timber including processed timber products. Net capacity is estimated at around 23 megawatts with potential to generate around 188 million kilowatt-hours of electricity.

As part of the build, Clugston Construction Ltd were tasked with finding a way of protecting cabling, subject to poor ground conditions and a tight construction schedule.

“The price was considered reasonable and service was excellent”

Chris Coultas
Project Design Manager,
Clugston Construction Ltd

It was originally proposed to lay the 185 metres of 132kV cables in open dug trenches around the site perimeter. However, due to concerns over differential settlement a more protective solution was required.

Clugston's project design manager proposed the idea of suspending cable troughs from the adjacent hard-standing area. This would overcome the issue of ground movement.

Clugston searched the internet and found Stanton Bonna Concrete. Contact was made regarding precast concrete cable troughs and how they could be adapted for this project.

After consulting with Stanton Bonna's Technical Team it was decided that reinforcement pull-out starter bars would need to be cast in to the external walls of the cable trough units. The bars would then be pulled out following installation to enable integration with the adjacent hard-standing area.

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Preparation

The area was excavated and concrete blinding laid in preparation for landing and positioning of the troughs.

Clugston requested flexible delivery dates to suit site requirements. Stanton Bonna were happy to organise and schedules were met accordingly.

Installation

Chris Coultas, Project Design Manager at Clugston Construction Ltd, said *“There have been no casting issues, so the method of installation was actually very easy”*.

The bespoke cable troughs were offloaded using cast in lifting anchors and chains, and lowered into the channels.

A jointing compound was applied to each joint and heat-sealed to create a watertight seal.

The next stage was for Clugston to pull out the starter bars and integrate the troughs with the adjacent hard-standing.

Chris also commented *“The technical support, attitude and responsiveness to requests for assistance regarding detailing and possibilities were key for us placing an order with Stanton Bonna . . . we made proposals and nothing was too much trouble. The price was considered reasonable and service was excellent.”*

“We were using another precast concrete company, but since then we have ordered chamber cover slabs and drainage headwalls and we shall return to Stanton Bonna for future enquiries.”

For further information on different sizes and profiles available plus the cable trough installation guide, go to the website at www.stanton-bonna.co.uk.

For details of other precast concrete solutions please contact Stanton Bonna today on 0115 944 1448.



StantonBonna

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