Ridgistorm-XL selected for ground breaking energy system

Polypipe's large diameter Ridgistorm-XL has been pre-fabricated to form an innovative bio-reactor solution for a sports arena and its on-site accommodation

The owners of Wheeldon Two, an off-road MotoX training centre in Devon, required a cost-effective, carbon-neutral on-site unit that would deliver the majority of its energy requirements while creating no visual impact in what is an area of outstanding natural beauty.

Working closely with New Generation Biogas (NGB), Polypipe was able to utilise the flexibility of its Ridgistorm-XL system to design and engineer four bio-reactors for the containment of agricultural waste, other organic matter and energy crops, with each unit measuring 2,100mm in diameter and 3,000mm in height.

The system utilises Archemax® Anaerobic Digestion technology to provide year round green energy, including heat and power to run the site's indoor training arena and surrounding holiday cottages.

Biogas is generated when bacteria break down organic material in the bio-reactors through the process of anaerobic digestion. Biogas is a carbon-neutral renewable fuel, primarily methane, and is used to fuel the CHP (Combined Heat & Power) plant to provide a reliable, sustainable and low cost source of hot water and electricity for the site.

Polypipe's design team worked closely with NGB to understand their specific requirements with regards to the capacity, expansion, pressure and performance at high fermentation temperatures to ensure that the project ran smoothly.

The use of Ridgistorm-XL polyethylene structured wall tanks also allowed Polypipe's specialist product support team to assist with the installation of the bio-reactors, allowing on-site design changes to be made to ensure a high degree of flexibility in the development of the plant.

Ridgistorm-XL

CASE STUDY

Project
Wheeldon Two – Devon

Client
New Generation Biogas

Application
Green energy

Products
Ridgistorm-XL

Polypipe Civils Head Office, Charnwood Business Park, North Road, Loughborough, LE11 1LE
Tel: +44 (0)1509 615100 Fax: +44 (0)1509 610215 Email: wmsenquiries@polypipe.com
www.polypipe.com/wms

Polypipe