

Second Biomass Plant for Verdo Renewables

Following on from the completion of the first plant for Verdo Renewables last year in Grangemouth, GAME Engineering Ltd are now nearing the end of the commissioning of the sister plant in Andover.

Both plants were designed together, although both being similar in design and operation GAME Engineering Ltd had to meet the challenges of incorporating the plant design within two very different locations and the restraints these locations brought.



GAME Engineering Ltd were involved from initial design concepts with the customer to producing plant designs for planning purposes, to liaising with civil contractors to ensure the plant met the required planning constraints and ensuring the installation schedule was on time and on budget.

As Andover is significantly smaller than the sister plant in Grangemouth, innovative design solutions had to be found to ensure the equipment installed was kept within the building and the existing look of the site. This was achieved by maintaining the room and access to run and maintain the plant successfully with platforms and walkways, while meeting the requirements of the fire regulations and budget.

The logistics of deliveries, storage, erection and building works had to be managed and monitored to ensure a smooth build process. This included liaising and programming tasks with many UK and international companies from such places as Denmark, Italy, Estonia and Canada and including various fields of work from civils, pneumatics, steam and electricians.

Producing and ensuring all the various companies met the health and safety, documentation & site requirements of the UK was also a major factor that had to be coordinated.



The equipment and plant installed gives the flexibility to the customer to handle logs and produce virgin wood chip, and accept woodchip or sawdust from other suppliers depending on market conditions and raw material supplies. Any of these raw materials can then be taken and fed by bucket loader into the plant in-feed system.

This raw material is pre ground to a specified size, which is then conveyed to a rotary drum dryer. This is dual fuel giving the flexibility of using either natural gas or raw material (wood chip) produced by the plant. The wood dryer dries the raw material to the designated moisture; this dried material is then conveyed into storage bunkers ready for either being made into wood pellets or wood briquettes.

Using our knowledge of working on other large projects and experience gained last year working on the first plant in Grangemouth, GAME Engineering Ltd have ensured this will be another successfully completed project for our customer.

GAME Newsletter April 2010

GAME Engineering Ltd has entered another financial year and the last 12 months has seen new clients returning for more business and new clients using GAME for the first time. The biggest change has been the affiliation between GAME and SCE Ltd, the specialist bin suppliers from Belgium. Offering a more enriched product and service to our clients.

GAME was pleased to announce at the end of 2009 the contract to design, supply and install the handling and process system for Clugston Construction at WoldGrain Storage. This contract draws upon the specialist knowledge that GAME hold within the grain and seed industry over the last 20 years.

During 2009 GAME appointed Karen Jacklin as the Marketing Manager. Karen's main focus has been to increase communication with old and new clients through new media i.e. emails, newsletters and the website. Keeping clients and prospective clients aware of GAME's products and services enables them to have a clearer understanding of what GAME can do to help them.

Colour Sorting on Cimbria Line

GAME have been working with Masstock Arable for over 5 years, carrying out a variety of projects at their plant at Bracebridge Heath. When GAME were approached to recommend a colour sorter for installation into their existing plant, GAME were more than happy to help.

After site visits and successful factory trials on barley, mustard and rapeseed, the Satake-ESM AlphaScan High Flow II colour sorter machine was chosen due to the relatively high throughput requirements of up to 25tph on some products with contamination up to 5%.

The machine is located on one of their two cleaning lines, between the fine cleaner and indented cylinders. Cleaned product is discharged from the existing Cimbria fine cleaner and into an existing B&B elevator.

Previously it would then either continue into the Cimbria Heid indented cylinder bank or bypass these and go on to re-cleaned storage for treating and packing. With the installation of a new diverter valve and associated ductwork, the products can be sent to the new colour sorter buffer hopper. Here four of the units five feed chutes are used as primary chutes, with accepted product continuing on via a new B&B elevator into the existing process just before the existing cylinder bank which still allows the option to bypass if required.

The rejected product is transferred by means of a new twin leg B&B elevator to the fifth chute, where it is re-sorted separately to further concentrate the rejected material. The re-sort is sent back up into the main buffer

hopper using the second leg of the twin leg B&B

elevator, rejected product from the re-sort is then sent to the trash / screening collection system and on into the screenings bins. This creates a closed loop system for the primary rejected material achieving the highest concentration of rejected material.

Installation of the new colour sorter did raise one other issue and that was of the existing compressed air supply not having enough additional capacity to allow guaranteed correct operation of the new equipment, GAME were more than happy to include the supply and installation of the additional equipment required to supply the compressed air as required.

The whole project was under GAME's control and included all new transfer equipment, platform modifications, dust extraction, equipment access, all ductwork, supports and final commissioning. The electrical work carried out was managed by Masstock Arable directly.



The Satake-ESM AlphaScan High Flow II colour sorter machine which was used at Masstock Arable.

An African Adventure

Between the 13th and 28th of March Joe Hoare, Project Engineer at GAME went on a journey to West Africa with local charity CPA (cpafrica.org.uk). It was primarily a fact finding mission to source



Joe Hoare in the Bush of West Africa during his mission with CPA

new projects for CPA to support, with time spent building relationships with the local people, in the city and out in scrub lands.

During the first week Joe travelled deep into the bush, which was more than a days journey from anywhere resembling western life.

Joe commented 'It was a real eye opener. Sleeping under the stars, drinking sweet mint tea, and being humbled by the generous nature of the people who we were visiting, some who have to travel over 10 miles to collect anything resembling clean water.'

Then in the city, being saddened to see boys from as young as three, the same age as my youngest, being made to beg on the streets in order to earn their stay under local Marabouts who have been entrusted by the boys parents to teach them.'

This is only a snapshot of what I experienced, the challenge for me is to do something worthwhile.

The Xchanging Boat Race 2010

Every father is proud of their son's sporting, academic and life achievements, so David Burkitt, Project Engineering Director was particularly proud on Saturday 4th April when he watched (with 250,000 other spectators who crowded the banks of the River Thames) his son, Charlie Burkitt represent Oxford University in the infamous Boat Race in London.

Charlie was the stroke for the Oxford crew, setting the pace for the gruelling 4 mile race. Unfortunately Oxford were not the winning team on this occasion but I doubt that made much difference to David.

Charlie is a member of the Leander Rowing Club and joined the senior men's squad in October 2008 after winning a bronze medal in the men's pair at the U23 World Championships and finishing 6th in the men's eight at the European Rowing Championships in Greece.

Charlie was a bronze medallist in the men's pair event at the 2007 and 2008 World U23 Championships. In 2008 he also had a successful season domestically, winning the Thames Cup (the club eights event) with Leander Club at Henley Royal Regatta and winning gold in the men's pair at Essen Regatta.

Charlie will be aiming to join the senior squad at the 2012 Olympics to represent Great Britain.

GAME would like to wish Charlie all the best for the future, and we hope to see him representing Team GB in London in 2012.



Oxford's Simon Gawlik of Germany (L) and Charlie Burkitt of Great Britain in action during Tideaway Week on The River Thames ahead of the Xchanging University Boat Race.

PRODUCT FEATURE

Rotary Sifter

The GAME Rotary Sieve or Sifter is designed to remove dust or over-sized particles from customer's products.

Product is fed into the centre of a cylindrical rotating screen. The tumbling action of the product within the screen segregates the fractions whilst moving along the length of the screen and is discharged through the end outlet. The small fractions pass through the screen and is discharged out of an under-hopper to fines handling equipment.



The product is fed into the machine at the feed chute end and rotated inside a mesh drum (with changeable sieve panels). The machine is angled to maintain a product flow with helper bars within the machine to carry product towards the clean end outlet. The drum runs on roller rings, being carried on drive rollers and positioning rollers to maintain stability. The case panels are removable for access to the screen panels. The rotary screen is fully sealed and aspirated and suitable to handle a wide variety of product types.

Come visit GAME at RWM 2010

GAME Engineering will again be attending RWM at the NEC, Birmingham from the 14th - 16th September. GAME will be located on **STAND 1330** and will have engineers on hand to discuss any requirements or specifications and to showcase our products, services and experience.

