



HRS Heat Exchangers: Furthering waste management in a sustainable way

Strengthens activities in the biogas industry

JANUARY 24, 2012/LONDON, UK – HRS Heat Exchangers Limited, a leading heat transfer specialist for the process industry, has recently supplied Clearfleau with HRS DTI Series: Industrial Double Tube heat exchangers for their innovative high rate Anaerobic Digestion (AD) system, installed at BV Dairy. Clearfleau is a leading British company developing renewable energy technologies with potential worldwide applications.

On-site Anaerobic Digestion (AD) is a cost-effective approach to handling liquid residues and co-products on food and drinks processing sites. The DTI type heat exchanger supplied by HRS is a corrugated double tube heat exchanger (tube within a tube). The corrugated tube enhances turbulence, breaks the boundary layer at the tube wall, and improves the heat transfer to give a shorter thermal length to fit with the Clearfleau compact design solution. Increased turbulence also ensures that the heat exchanger can withstand the negative effects of fouling for longer periods.

The heat exchangers are heating the digester, which takes all the liquid feedstock from site and has helped BV Dairy to reduce its sewage treatment charges, energy costs, and well as the carbon footprint and also transfers any residual heat from Clearfleau's digestion process to the dairy.

BV Dairy, Dorset based manufacturer of fresh dairy products for the food industry officially opened its anaerobic digestion (AD) plant in July 2011. Clearfleau is the project partner that designed the system from extracting energy from liquid food processing residues. The plant will treat the waste materials on-site thus reducing sewer disposal costs, while generating renewable energy for use in dairy.

Commenting on the partnership, Derek Rodman, Technical Manager, Clearfleau said, "Clearfleau's AD technology can deliver at least a 95 per cent reduction in the COD load of liquid bio-effluents fed into the digester, making it more effective than a high-rate AD system. HRS' heat exchanger applications have helped reduce the running cost of the plant discharging to the local



sewage system thereby further contributing to the reduction in the carbon footprint of BV Dairy's milk processing site ”.

“HRS always offer the optimum heat exchanger solution to any heat transfer application and in this instance our corrugated DTI range is clearly the best and most efficient option”, said Stephen Wooler, Technical Design Engineer, HRS Heat Exchangers. “HRS Heat Exchangers offers long experience in a wide range of industrial applications and this partnership with Clear/leau clearly reflects that.”

About HRS Heat Exchangers Limited

HRS Heat Exchangers Limited (part of the HRS Group) is a leading international heat transfer specialist offering innovative solutions to the processing industry.

Headquartered in the UK, HRS Heat Exchangers operates at the forefront of processing technology and for over 30 years has designed, manufactured and sold heat exchangers and heat transfer technology to many different industries.

HRS products and system solutions have been used in such sectors as HVAC, Food, Chemical, Pharmaceutical, Water supply, Energy Recovery, Waste to energy and Environmental protection. All HRS products are manufactured to ISO 9001 and comply with the European PED, and are also certified to the ASME “U” stamp standard.

HRS Heat Exchangers Ltd offers a wide range of heat exchangers and associated products including corrugated tube shell and tube, scraped surface and plate heat exchangers, together with a hygienic piston pump and packages such as Pasteurisers, CIP and Food processing systems. HRS also manufactures a patented self-cleaning scraped surface evaporator system for solids concentration.

HRS has offices in Spain, Germany, USA, Peru, Dubai, Kuala Lumpur and India as well as manufacturing and assembly plants in the UK, India, Dubai and Spain.

To learn more about HRS Heat Exchangers, please visit www.hrs-heatexchangers.com

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