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Biotechnology plant requires boiler

Anaerobic digestion is an up-and-coming industry which relies on biodegradable materials – such as footstock and effluent – being broken down into carbon dioxide gas and fertiliser. When heated up in large digesters the resultant biogas produced can be used to generate electricity. It can even be further refined to become a viable natural gas substitute – a priceless commodity as companies look to becoming more environmentally friendly.

These facilities are subsequently opening with increasing frequency, with one recently constructed in the Hertfordshire area. However, before a digestive process could commence, a hot water generating system was required to kick-start the development.

Following the initial enquiry, we dispatched a regional Andrews Boilers specialist to assess the problem. An arrangement was then designed according to the client's needs – enabling the whole manufacturing practice to be kept at the desired temperature. An oil-powered 500kW packaged boiler was delivered to site and stationed next to the main boiler house. Two 3" hoses were connected to 3" PN16 flanges, with this measure enough to bring temperatures up to anticipated levels within the digesters themselves.

The boiler supplied by us helped heat the slurry up to the required 38°C, thus allowing the plant to be commissioned for producing electricity. Interestingly, all excess electricity generated can be sold directly to the national grid – highlighting the potentially lucrative benefits of opening the plant as early as possible.



Nominal heating duty 500kW
Power supply 415V 3ph 50Hz Run 10A
Plug type BS4343 5 pin 32A
Noise level 45dBA @ 10 metres
Weight 3,500kg
Dimensions (mm) 3000 x 2400 x 2600
Fuel type Gas oil/natural gas
Max fuel consumption 60l/h
LPHW connections 75mm (3") storz coupling
DHW connections 50mm (2") storz coupling
DHW recirculation connections 25mm (1")
storz coupling
Natural gas connections 2" BSP coupling



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