Montello SpA is a market leader in sorting, recovery and recycling of post-consumer plastic packaging, as well as treatment, recovery and recycling of organic waste. At the company’s 350,000m² plant near Bergamo, waste is used to produce biogas from an anaerobic digestion process that generates electric and thermal energy, as well as high quality organic fertiliser.

A total of seven Bredel 80 hose pumps from Watson-Marlow Fluid Technology Group (WMFTG) have replaced competitor hose pumps on buffer tanks feeding the digester at a major Italian recycling plant.

CASE STUDY

- Bredel hose pumps provide high temperature, high flow sludge handling
- Very abrasive sludge with dry solids content of 60-80%
- Process uptime is improved by 25%

25% improvement in process uptime and reduction in CO2 emissions at organic waste recycling plant.
Heavy-duty application

The company uses pumps to feed the digester from buffer tanks. This is a high temperature and high flow (21m³/hr), 24/7 application. The sludge is viscous with high dry solids content (up to 60-70%), which can include highly abrasive sand. Pressure is a further issue: for safety reasons involving the production of gas, the digesters are located far from the plant, so the discharges are up to 100 metres distant.

Montello’s existing pumps and hoses were falling short of expectations in terms of process uptime and operational costs. In search of a solution, the company turned to WMFTG, requesting a trial of two Bredel 80 pumps. The closed loop, speed controlled pump, running against a discharge pressure of 5.5 bar improved process uptime by 25% using NR (natural rubber) hoses.

With the new pumps and hoses in place, the customer now achieves a reliable process that offers predictable gas generation and known maintenance costs. Today, seven Bredel 80 hose pumps are installed.

To learn more about our solutions for your applications please contact your local sales company:

wmftg.com/global