

**Process Heating Solutions Worldwide** 

# General Industrial Case History



## **Anaerobic Treatment of Organic Waste**

#### Application

A large dietary supplement manufacturer sought a process for treating industrial waste in a circulation loop scenario. In anaerobic treatment applications, the temperature of the organic waste is elevated to a final process temperature of 100°F. Heating units sought would work in a patented mobilized fill technology which maintains greater biomass concentration levels and lower retention times than other technologies.\* This new technology is very resilient in treating high organic concentrations, easy to operate, controls odors and can treat a broad range of organic waste streams. Unlike larger settling pond applications, this has a smaller footprint and promises up to 90% less sludge.

### Solution

**Pick 6X10-3 Constant Flow Heater.** This application is perfect for Pick Heaters. Unlike conventional wastewater treatment processes which are aerobic, this anaerobic process does not use oxygen. Aerobic applications tend to produce a large volume of sludge, resulting in high energy requirements. Here, the process uses little energy and produces comparatively less sludge.

The Pick Heater handles large volumes of liquid with a low liquid side pressure drop, while maintaining the tight temperature control necessary in the anaerobic process. The internal flights of the heater ensure the slurry is evenly heat treated before discharging into the settling pond.

#### **Process Conditions**

- Liquid Flow Rate: 100-150 GPM
- Temperature Rise: 19°F
- Steam Supply Pressure: 80 PSIG
- Liquid Supply Pressure: 10-12 PSIG

\* Mobilized Film Technology- AnAerobics