

Affco Horotiu saves 450,000 kWh annually with tallow tank insulation

Affco Horotiu recently insulated two large tallow tanks, reducing the heat loss from the tank surfaces and saving 450,000 kWh per year. Its annual energy bill is reduced

The Opportunity

Affco Horotiu has two 100 tonne tanks used for storing tallow. To prevent it from solidifying, the tallow is typically kept at a temperature of about 65°C. Steam is used to generate the necessary heat. Without any insulation, the tallow tanks at Horotiu were losing large amounts of heat through the walls, requiring additional steam to keep the tallow at temperature.

The Solution

Paul Geddes, along with the members of the energy team at Horotiu, recognised that savings could be made by insulating the tallow tanks and arranged 100mm insulation to cover both tanks.

Less steam is now required to keep the tallow at temperature. In addition, the tallow holds its temperature much better when the boiler (and therefore steam) is switched off overnight or over weekends; and now less energy is required to bring it back up to temperature.

The cost of insulation installed was \$22,500 per tank, supplied by Thermal Protection Services Ltd, Hamilton

The Results

With the insulation installed the rate of heat loss from the tallow tanks was measured to reduce from an average of 40-50 kW down to 1-2 kW. The insulation also means the tanks are not subject to extreme heat loss in wet and windy conditions.

Over the course of a year the insulation saves 456,000 kWh of heat energy that otherwise would have to be produced as steam from the boiler.



→ 456,000 kWh saved every year!

→ Resistant to extreme heat loss in wet and windy conditions