

Flexible Heaters

Problem:

A food company needed to maintain the temperature of 6 x stainless steel tanks at 80 °C.

The heating system was to be installed onto the tank by the fabricator, insulated and then shipped to an overseas client for final installation in a food processing plant.

Our customers' first consideration was ease of instruction, installation and use for both their fabricator and overseas customer. They had used traditional mineral-insulated heat tracing in the past. Questions about the labour costs and difficulty of correct installation led our client to seek a better way of achieving their heating goal.



Solution:

The moderate temperature and curved surface of the tank made Cynebar recommend using simple to fit flexible silicone heater mats with self-adhesive peel and stick backing.

In addition, each heater came with a silicone lead and insulation entry kit, so there was no requirement to terminate ends and installation was easy.

Temperature control was by means of an easy to install self-adhesive sensor attached to the tank surface, PID Digital controller pre-programmed by Cynebar ready to install into the control room with Solid state relays.

Ultimately, there were savings of 33 % on total installation time. It took 4 hours per tank compared to equivalent time on 150 m of heat trace would take about 6 hours at 25m / hour.

Products used for 6 tanks:

24 x Flexible Silicone Heater mats, 240 Volt, 1250 Watt, 480mm x 1500 mm.

4 x Kaptan Thermocouple Type 'T', peel and stick.

4 x PID Digital Temperature controllers, SSR Drive with 2 Alarms

4 x 40 Amp Solid state Relays with Heatsink