Ramp Heating for Residual Waste Facility

HEATCOM
SMART HEATING SOLUTIONS

Advanced ice & snow systems

Ramp & Slab Heating

Fully Programmable Thermostats

www.heatcom.dk

The Goal

A Heatcom ramp heating system has been specified and installed at the Greatmoor Energy from Waste Facility currently under construction in Edgcott, Buckinghamshire.

The facility, commissioned by Buckinghamshire County Council, is intended to convert 300,000 tonnes of residual waste to energy at an existing landfill site in Calvert, Buckinghamshire. The household waste will be burned inside the plant to generate electricity and hot water year round. The structure incorporates a concrete pavement and steep ramp for refuse vehicles to drive up, carrying waste to the enclosed reception area. This ramp must be accessible 365 days a year to maximise the plant's efficiency.

Contractor Sir Robert McAlpine approached Heat Mat to supply and oversee the installation of a robust slab heating system (ramp heating) for the entrance to the reception hall. The purpose of this system is to ensure the site remains accessible in any weather conditions.

Heatcom´s Solution via Heat Mat

A high output 7mm In-screed cable system was specified to heat the ground beneath the asphalt. A loose cable was chosen over a mat system as this suited the driveway construction and also allowed the output of the heating to be varied across the ramp as required. also offer hot-asphalt cables that can have 180oC asphalt

About Heatcom

At Heatcom, we are specialists in electric heating solutions for indoor and outdoor environments.

Founded in Denmark, we deliver high-quality, energy-efficient, and easyt-to-install systems to customers around the world. Our product range includes underfloor heating, ice and snow melting

The system has an output of around 270W/sqm. Due to the steepness of the drive and the power of the heating, there was no requirement to heat the drainage channels as the melt water temperature would be high enough to keep them ice free.

A fully automated timer/thermostat was installed utilising a ground-level sensor that monitored the driveway temperature and local moisture levels. The intelligent sensor ensures the system is only turned on when there is a genuine risk of icy conditions. The output is sufficient to heat the area and ensure it remains ice and snow free in temperatures down to approximately -25°C, however it is in temperatures around freezing that there is the greatest risk of precipitation. The sensors also recognise when the system is no longer required and switch off once the area is clear of melt water. This minimises running costs, which are projected to be less than £150 a year in a 'cold' winter.

The Result

Once these heating systems are installed pushback zones remain snow and ice free even in the most severe weather. The pushback tugs can operate without the risk of skidding and when the planes come onto stand they can clearly see the markings in the aeroplane parking bay.

Project in detail

Date Installed

2015

Location

Greatmoor near Calvert, Edgcott Buckinghamshire

Client

Sir Robert McAlpine on behalf of Waste Recycling Group (WRG) and FCC Environment

System supplied through

Electrical Distributor t

System Specifcations:

- 7mm in-screed ice and snow melting cable system
- 270W/sqm output
- Automatic monitoring and control equipment in-cluding ground and air temperature and moisture sensorsv

About Sir Robert McAlpine:

Sir Robert McAlpine were commissioned by FCC Environment as civil engineers to work on the pro-ject for Buckinghamshire County Council.

The system en-sures the ramp can be used all year round…

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