

THERMOSAFE® used to heat Bitumen in Cable Factory

LMK Thermosafe Induction drum heaters have been providing solutions for drum and container heating projects in hazardous areas for around thirty years. Their unique design and award winning energy efficiency have made them an essential element in a multitude of process plants and factories around the world.

Pirelli Cable Accessories provide a wide range of accessories for the power distribution of high voltage cables up to 400kv. Certain applications require stainless steel pressure balancing cable tanks to be buried into the ground along with the cables. Additional protection is given by encapsulating the tank with bitumen inside a concrete shell. During the assembly process, the pressure tank is placed within the concrete shell and liquid bitumen is pumped between the pressure tank and the shell.



To enable the bitumen to be poured, which is solid in its normal state at ambient temperature, Pirelli use Thermosafe Induction Heaters, raising the bitumen to its melt-point of approximately 160°C.



"The Thermosafe Induction Heater has proved to be fast, efficient and reliable and additional units have been purchased for other applications within Cable Accessories and the Pirelli group due to the success of this project" commented the Pirelli Manager responsible for the installation.

Designed to heat 205 litre drums or smaller steel vessels, Thermosafe is a single induction coil, wholly encapsulated in a cylinder made from very high performance GRP resin specifically developed for chemical plants. The heater is simply placed over the drum; physical contact is not required.

Thermosafe possesses full ATEX and IECEx certification as a system, allowing it to be used in Zones 1 and 2 hazardous areas for both gases and dusts. As there are no radiant elements, the heater remains substantially cooler than the drum being heated. The complete absence of hot elements and the encapsulation of all critical electrical components enables safe and unattended use, overnight if required. The heating coil will not be damaged by accidental spillage of drum contents, and personnel can work comfortably in close proximity. Complete access to the drum while heating enables pumps and stirrers to be employed.

Thermosafe has proved to be 2-4 times faster than traditional drum ovens and independent figures have demonstrated energy savings of over 50% when compared with conventional radiant drum heaters, and more than 90% in comparison with drum ovens.