



Infrared Heating Systems help Manufacturer to Maintain Chocolate Quality

Two carbon infrared heating systems from Excelitas Noblelight are helping to ensure consistent chocolate quality at the Kinnerton Confectionery Ltd. One system is used to pre-heat chocolate moulds prior to filling and the other is used to melt chocolate rims prior to rim heating, which involves the fusing of two chocolate halves. Both retrofitted systems have also provided significant space and energy savings.

Established in 1978, Kinnerton Confectionery is Britain's largest manufacturer. Its range includes advent calendars, clusters and chocolate figurines.

The production of moulded chocolate involves depositing liquid chocolate into polycarbonate moulds. However, it is important that the moulds are pre-heated to a specific temperature before the chocolate is poured. If the moulds are too warm, the chocolate can change its characteristics and detemper. If they are too cold, the poured chocolate will lose shape and possibly crack.

To prevent this, Kinnerton had previously used both metal element heaters and a warm air heating system. The metal element system incorporated a servo system to locate the heating elements over the moulds and, in the event of line stoppage, this involved considerable delay in removing the heaters, which meant that a number of filled moulds were excessively heated. The warm air heating system took up considerable space and was difficult to control so that heating was not consistent causing quality problems.

In an effort to solve these problems, Kinnerton contacted Excelitas Noblelight, who provided a trial infrared system. This proved so successful that a full-scale 14.4 kW carbon infrared system was installed, featuring a pyrometer to ensure that the moulds are heated to exactly 29°C. Subsequently, a second 9.6 kW carbon infrared system was installed for rim heating.

As David Hume, NPD Technical Process Manager at Kinnerton, explains, "The infrared system, which was retrofitted without any problems into the available space, provides precisely controllable heating for both the moulds and the chocolate rims so that reject levels have been significantly reduced and quality improved."



Features

- Pre-heating chocolate moulds
- Rim heating
- Space and energy savings

Technical Data

- 14.4 kW and 9.6 kW carbon infrared-systems
- Moulds heated to exactly 29°C
- Pyrometer control

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