

Spiroflow Conveys Ingredients for Candy Maker

Customer Requirements

Thomas Tunnock Ltd is renowned for their famous Caramel Wafers, Snowballs, Caramel Logs and Tea Cakes. A major part of the success of these products is Tunnock's own brand of chocolate made from a secret recipe using cocoa liquor, two famous brands of proprietary chocolate, sugar and lethicin.

To improve efficiency, the chocolate production section was relocated a step at a time. This ensured no loss of output given that they need 60 tons of their creamy milk chocolate plus a significant amount of dark chocolate to meet demand every week.

A hygienic and reliable conveyor was required to transfer the sugar and chocolate ingredients to a pre-mixer for delivery to a series of chocolate conches where they are mixed with the liquid components. The chocolate mass is worked in the conches until it reaches that special Tunnock's flavor and smoothness.

Spiroflow Solution

It was Tunnock's own engineers who suggested a Spiroflow Flexible Screw Conveyor to load the dry ingredients into the pre-mixer as several are successfully used on other applications around their factory.

Samples of sugar and their two proprietary brands of chocolate were sent to us for trials in our testing facility. One brand was supplied as a crumb and the other as a traditional slab. Although our standard screw, with a round cross-section, coped admirably with the sugar and the chocolate crumb, the required rate could not be achieved with the slab chocolate. It tended to smear and build up on the screw.

However, we have a screw with a bevelled cross-section. This was specifically developed for difficult products and has proven its worth on materials that have smearing or cohesive characteristics. Needless to say, the bevelled screw solved the problem! It works by placing more surface area in contact with the product for greater propulsion while preventing build up on the active surface.

The system installed at Tunnock's is an excellent example of the capability and versatility of Spiroflow Flexible Screw Conveyors. It delivers three different ingredients from three separate feed points to the pre-blender.

