

Not a Cookie Cutter Conveyor: LEWCO Designs A Conveyor To Solve Unique Bakery Industry Problem

The United States' leading baker of biscotti cookies recently approached LEWCO, Inc. with a unique manufacturing problem. It seems the most popular style of this Italian dunking cookie is bottom coated with a layer of chocolate—and the chocolate was being scraped off the cookies as they transitioned from one conveyor line to another.



The bakery executives met with LEWCO, Inc. design and application engineers to come up with a concept to design, build and test. If successful, the prototype conveyor would be incorporated throughout their North American facilities. After much trial and error, it was determined that rotating the long, narrow cookies as little as 15 degrees after leaving the baking ovens allowed the chocolate coating to be applied—and to stick!

While rotating the cookies solved the coating problem, the application became more complex as the company needed to run various sized and types of cookies through the same chocolate coating line. LEWCO, Inc. designed and built a conveyor that runs 10 separate food-grade belts on one unit, each belt capable of running at a variable speed. Because biscotti cookies are long and narrow, they span two belts, with five cookie lines running down the length of the conveyor. As they advance down the conveyor, the cookies slowly revolve until they achieve the needed degree of rotation that allows the chocolate coating to stick.



This ten-strand, ten-drive conveyor is powered by ten separate variable frequency drives (VFDs), which are controlled through an Operator Interface Terminal (OIT) via Modbus communications, facilitating creation, storage, modification and execution of up to fifty distinct “recipes” in addition to being capable of manual control and on-the-fly changes. The programming and communication features of the OIT and VFDs eliminate the need for a PLC and presents clear visual and

textual interface using multi-level access screens which allow monitoring and control access commensurate with selected levels of security and responsibility. Safety, simplicity, ease of use and cost efficiency defines the controls system implemented on this machine.

LEWCO, Inc. welcomes design and custom conveyor challenges. With a full staff of experienced conveyor design and application engineers, we can solve the toughest manufacturing problems—“from concept to commissioning”.