
Hard Candy Depositing

The market for hard candies and lollipops has moved towards high-quality, innovative products, facilitated by the availability of depositing as an alternative to traditional processes.

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Hard candy depositing is a process that has developed and grown rapidly over the last 20 years. Deposited hard candies and lollipops are now produced in every major confectionery market around the world by manufacturers ranging from regional specialists to major multinationals. First introduced over 50 years ago, depositing remained a niche technology until confectioners recognized its potential to meet increasing market demand for premium, high-quality, innovative products. Today, it continues to progress, offering manufacturers an ever-widening range of opportunities to blend visual appeal with exciting taste and texture combinations.

This paper will review the basic principles of depositing and discuss the fundamental aspects of design that should be considered when engineering a complete depositing solution. A study will also be made of each of the main candy types frequently produced today — solid, striped, centerfilled, layered and lollipops — with the important process and engineering criteria highlighted. The paper will also examine many of the changes and improvements seen over the last 50 years, and speculate about the developments that will shape the future of depositing.

DEPOSITED CANDY

First, we should remind ourselves what deposited hard candies look like. Figure 1 shows some typical examples.

They are made in specially coated moulds that impart a uniform size and shape, and a smooth, glossy surface finish. They have excellent flavor release and a smooth mouthfeel with no sharp edges.

An obvious distinguishing feature is the witness mark left by the mould ejector pin. Typically it is 5 or 6mm diameter but can occasionally be smaller. Deposited hard candy is generally regarded as a premium product.

Basic Depositor Principles

At first glance the manufacture of deposited hard candy is a relatively simple process, although there is a lot more to it than meets the eye. Cooked candy syrup is fed continuously to a heated hopper positioned over a chain-driven mould circuit. Pistons in the hopper meter the syrup accurately into individual cavities in the moulds, which are then conveyed into a cooling tunnel. Generally, the products remain in the moulds for the forward and return runs of the circuit before being ejected onto a takeoff conveyor. This process is illustrated in Figure 2.

Usually the mould circuit runs continuously with the depositing head utilizing a ➤



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