



Filling Equipment

The hot fill capability is a feature that is designed specifically for the automatic Model H-748-CE volumetric-type, continuous motion liquid filling system. The controlled environment heating system maintains the elevated temperature of the incoming product and includes the following:

- Receives the containers in single-file on the conveyor assembly
- Carries the containers through the filling area on a continuous motion feed screw indexing mechanism
- Filling nozzles are mounted on a walking beam assembly which tracks the movement of the containers through the filling area
- Nozzles lower into the containers to a point roughly ½" above the bottom
- Nozzles rise with the level of the liquid during the filling cycle
- The filled containers are transferred downstream to the next production function

Challenge

Filling hot and foamy liquids into glass containers at high speeds.

Solution

A hot, or molten product filler is designed to operate in a continuous motion mode in order to achieve the desired fill rate. A timing screw separates the bottles increasing throughput. A walking beam diving nozzle bracket fills the glass bottles from the bottom up, that eliminates foaming. All pumps, tubing, and nozzles are in a heat controlled enclosure that maintains product temperature.



Industry - Food

Container - 5oz-12.7oz glass bottles

Speed - 140 cpm

Metering System - Piston Pump

Combination - 5 container sizes/styles

Temperature - 170°F

Hot/Molten Products Filling Technique

The filler maintains the elevated temperature of the incoming product.

The hot fill technique allows liquids such as oils or liquefiable solids such as stick deodorant and lipstick to be filled with ease. This is accomplished by the filler maintaining the elevated temperature, up to 200°F, of the incoming product.

Hot filling utilizes the bottom-up filling technique in order to eliminate splashing and minimize foaming during the filling process. The nozzles of the pump are inserted into the bottom of the container before slowly withdrawing them as the liquid fills the container.