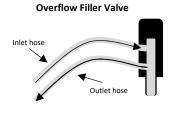


OVERFLOW FILLER [FILLERS - PART 3]

From a production standpoint there are two disadvantages to a gravity filler. Firstly, it is relatively slow since it depends on gravity to fill the bottles. Secondly, if there is some breakdown on the filling line, product will remain in the filler bowl where it may cool below pasteurization temperature. If that happens, the product will have to be discarded (or pumped back to a different tank for pasteurization) and the filling line will need to be restarted and revalidated as being suitable for safe food production.

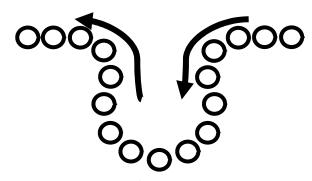
These issues can be overcome by using an overflow filler, where product is <u>pumped</u> into the bottle instead of flowing in with gravity. Whenever the valve is engaged with a bottle, the pump will push product into the bottle…even when the bottle is completely full. Therefore, the filling valve has <u>two</u> hoses attached to it. Product flows into the bottle from the top hose, and anything pumped into the bottle after it is

filled goes back to the product tank through the bottom hose. Since product flows all the time, if there is a breakdown of



the filling equipment the product will automatically be reheated as it flows through the pasteurization equipment.

In this filler, there is an almost-continuous flow of hot product through the valves, with just a small break from when the valve lifts off one bottle until it comes to rest on the next one (maybe from the 10 or 11 o'clock position to the 1 or 2 o'clock position). Accordingly, it is appropriate for the hag'alah water to also flow for long enough that the valves stop being דפנות מקררות. That said, the overflow feature makes it somewhat easier to kasher these valves for an extended amount of time. That is



Regular OperationBottles in and Out of Filler



KasheringBottles Circulate in Filler



because if the belt is modified so that the same bottles continue going round and round (instead of leaving the filling area and being replaced by empty bottles), hot kashering water will continue to flow

through the valves and bottles. [This would not be effective in a gravity filler since hot water would stop flowing as soon as the bottle became filled].

מראה מקומות

שולחן ערוך סימן תנ"א סעיף ה'