Getting Your Beer in the Can

by Matt Vincent, Ska Fabricating

You've got your space, you've picked your brewing equipment, and maybe you're already canning by hand - but it's not working out well for you. Either you need to can more beer faster, or the quality of the product isn't holding up because you are hand filling cans off the tap and seaming on a single head manual seamer. Maybe you just need to keep your tap room cooler full or you are thinking about picking up a couple of additional accounts to sell your products. In any case, you've determined it's time to consider scaling up with a little more automation.

Choosing Your Canning Line

There are a lot of options on the market from many different suppliers of canning systems. The system that you choose is best determined by the volume of cans you intend to package. Are you planning to package 10 cases, 100 cases or 1000 cases? The size of your brite tanks play into how much you are planning to can. It doesn't make sense to oversize your canning line if your brite tanks are too small. You will empty them in less time that it takes to clean the line!

For example, if you have a 10 bbl brite tank and you want to package it all, that equates to roughly 3300 cans. If you get a canning line that runs at 50 cans per minute(CPM), you will be done in roughly 66 minutes. While that seems dreamy to be able to knock that out in a short amount of time, you will end up wasting a lot of beer during that run. It's definitely possible, but not recommended. Not only will you waste beer doing that, unless you are amazingly adept at plunking quarters into a slot machine(i.e. loading cans into the filler one at a time), it will require more equipment, specifically, a depalletizer, to be able to automatically feed the filler at the speeds required.

The alternative is undersizing your line. If you end up purchasing a line that is too small for your production runs, labor becomes the issue. People can only stand in front of a slow filling line for so many hours in a day before high labor costs, equipment maintenance, and turnover become the issue. Your product will suffer if people are too tired to focus on quality.

Regardless of filling line speeds, one key thing to remember is that **you never want to starve the filler of cans**! Starting and stopping the filler always results in more waste and foaming from the cans, meaning more beer on the floor and not in the can. When any filler sits idle, the beer in the lines warms up, causing excessive foaming. It usually takes 3-5 cycles of the filler to get everything cold and running properly again. This excessive amount of foam can cause low filled cans and will also result in high levels of dissolved oxygen (DO), the enemy of packaged beer.

Filling the Can

        Speaking of cold beer and foam, there is a perfect level of foam when canning beer. The goal is to eliminate as much potential for DO pickup as possible. Warm beer foams excessively! Always target product temperature of 31-35 degrees for packaging your beer. Large bubbles (known as fisheyes) indicate that there is some level of oxygen pickup occurring. Ideally, there should be a slight amount of very fine foam bubbles just barely reaching the top of the can.

        Most canning machines on the market offer some sort of under lid gassing prior to the lid being applied to the can. This applies a blanket of CO_2 between the lid and the foam as the lid is being applied to the can, further reducing the level of oxygen once the can is seamed. Additionally, there should be a pre-purge feature that gases the can prior to filling. These are important features that one should look for in their selection of a canning machine.

        If you are getting flat fills, no foam at all, then you should be concerned about the level of carbonation in your beer. If the beer isn't properly carbonated, then you could end up with squishy cans and a less than desirable product for your customers. Check your carbonation levels with a proper measuring device prior to canning every time.

Speed = Automation

        There are various levels of automation and speeds in canning lines these days. There are tabletop fillers that run at speeds as low as 8-10 CPM and it only gets faster from there. At speeds of 30 CPM or more the level of automation needed rises.

        Depalletizers, fill level detection, labelers, and six packing machines are all pieces of equipment that need to be taken into consideration when scoping out your line. Size your line appropriately and make sure you understand all the other equipment you will need to accommodate your filler speeds, keeping in mind that labor plays a huge part in your operations. Automation reduces labor and increases quality so you can focus on what's most important - getting it in the can!

[Your author block goes here]