

Beating Industry Standards at Coopers!



At Coopers Brewery, it is as important to improve the benchmark as it is to reach for it. With their dedication to continuous improvement the Regency Park site in South Australia continue to push the boundaries to stay ahead of the pack.

Although the loss of glass and can waste on the Bottling Line is very good compared to industry standards, a Cross-functional improvement team was given the challenge to reduce the waste even further and thus reduce operating costs.

The “Lost & Found Team” were given the mandate to identify problem areas and implement solutions to reduce the amount of glass loss (from 0.55% to 0.4%) and reduce can losses. They also needed to establish a standard method of calculating glass and can waste on a daily basis. Since can production was limited during the 12 week cycle, the team predominately focused on glass bottle waste.

As always the team commenced by analysing the current situation, which involved reviewing the previous months data on the Bottling Lines glass and can waste. Upon reviewing this waste data, the team soon realised that the information was not accurate enough and they would therefore have to conduct production observations and trial counts to identify problem products and problem areas on the Bottling Line.

The first priority of the team was to confirm that all the bottling line machine counters were counting bottles accurately. Therefore the team conducted two 10 pallet trials to

validate machine counts. The result of the trials identified a few minor problems, but overall confirmed that the machine counts were accurate within a few bottles.

The team identified that most of the counting errors were due to not accurately capturing the number of bottles left on the line, when the line was not run out. Hence at the end of the 2nd shift each day, any bottles left on the line were to be counted to ensure the daily waste figure would be accurate, meaning corrective actions could be undertaken if required.

Figure 1: Fallen Clear bottles between 1st and 2nd 90 degree bends



Figure 2: Guard modified to stop fallen bottles jamming on Label machine singuliser



The team also conducted a number of line observations to identify and confirm known trouble spots on the Bottling Line, that could generate glass waste (refer to Figures 1 and 2 for examples). Here is a summary of the findings and improvements:

- Clear bottles – De-palletiser side back corner, bottle falls (look at possibly stopping conveyor before Flap opens).
- Gaps from De-palletiser – Fallen Clear bottles between 1st and 2nd 90 degree bends (Line speed is too fast causing many fallen bottles, refer to Figure 1).
- Fallen bottles and cans inside Pasteuriser.
- Uneven belts flowing from 2 conveyors to 1 conveyor (behind past panel).
- Stainless Electrical conduit cover is a bottle jam point (refer to Figure 2).
- No back-up sensor on out-feed of Packer to stop machine if a carton jams at Rejecter / Carton Turner.
- Device to stop incorrectly turned cartons on the Palletiser.

At the end of the improvement cycle, the team made the following two key recommendations for the TPM³ Leadership Team to consider.

1. Each shift needs to continue to reconcile daily production counts to ensure actual counts and MES (Manufacturing Execution System) counts are accurate so that MES can then be used for data capturing in the future.
2. The glass and can wastage needs to be reviewed at the Daily Production Meeting and if waste is excessive, **immediate** action is to be taken to prevent re-occurrence.

CTPM congratulate the “Lost & Found Team” for their great achievements. We look forward to the continual improvement of the Bottling Line and the development of the improvement teams.

For further information please contact:



Larry Mazza

Director

Phone: 0408 743 214

Head Office: +61 2 4226 6184

Website: www.ctpm.org.au