

## Coopers Brewery – “Making It Stick!”

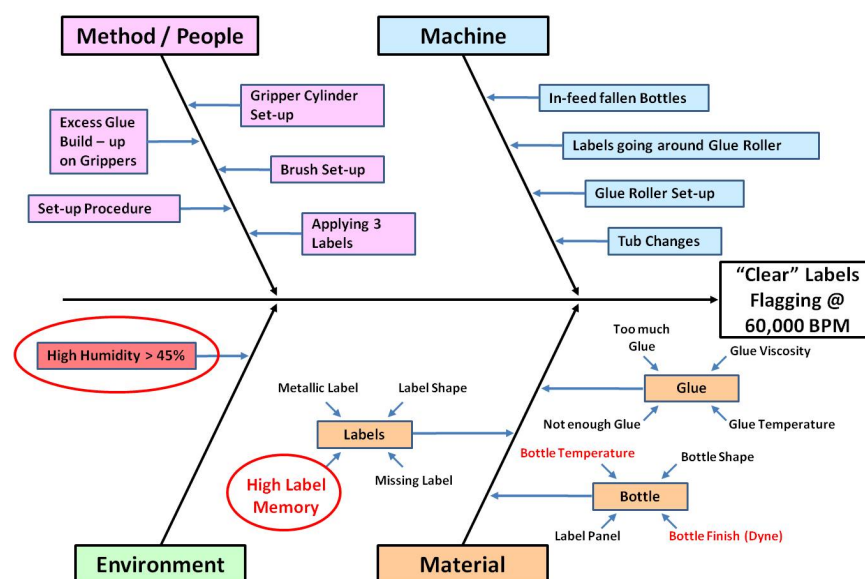


*Just when you thought there were no problems with beer.... don't worry it's only the label!*

Following on from the good work of the Labeller Team in the previous Improvement Cycle, a Mini Micro Problem Solving Team was formed to **achieve consistent labelling on Coopers Clear products at 60,000 Bottles per Hour (BPH) on the Innoket Labeller without flagging or quality problems.**

By following the Mini Micro Problem Solving 7 Step process and conducting line trials using Design of Experiment (DOE) techniques, the team was able to establish the root cause of why body and neck Coopers Clear labels were flagging above the line speed of 40,000 BPH. The team considered a number of causes that could affect the flagging (refer to Figure 1 below).

Figure 1 - Cause & Effect Chart



Armed with the knowledge gained from the previous Improvement Cycle on key process variables such as bottle finish (Dyne testing),

gluing characteristics including Cobb Value (paper water absorbency) and “Wet Tack” (stickiness of glue), the team were able to conduct a number of trials with combinations of synthetic / casein glues and labels with different types of paper and levels of embossing (paper memory or stiffness).

The results from the production trials and DOE analysis supported the hypothesis that **High Label Memory** was a root cause of label flagging at high speeds.

A full shift production trial with existing glue and Rotoflex paper (heavy embossed, low memory) was able to be run at 60,000 BPH with good label quality and no flagging. This was an excellent result for the team, but their work is not yet finished.

There is still another hypothesis to prove or disprove; **does High Humidity >45% cause label flagging at 60,000 BPH.** During the summer months, the team will conduct further trials and analysis to determine the effects of high humidity and trial different glues if need be.

They also made other improvements to ensure high speed running and good label quality, which included an improved Change Parts Trolley (as seen in Figure 2) designed and made by Maintenance team member Troy Roberts. The new compact design allowed for better storage of changeover parts, especially label brushes which were prone to damage.

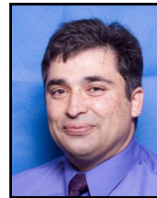
**Figure 2 - New Change Parts Trolley**



Other improvements included water proof covers for Glue Pumps and a Glue Pump cleaning station. Terry Santucci (Packaging Maintenance Team Leader) also identified that Coopers Clear Body Gripper Cylinder does not have “Push-out Sponge” as per other products.

On behalf of CTPM we congratulate the team on their effort and results. We look forward to supporting the team in their attempt to trial the next hypothesis and are certain that they will achieve even greater results in the future.

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