

TPM'S SHOUT

MOVING TOWARDS PROCESS CAPABILITY EXCELLENCE CONT.

A PCE leadership team, comprising Nick Sterenberg (Team Leader), David Jones, Jon Meneses, Simon Fahey, Dave Medlyn, Robin Vanstone, Doug Connor (Coordinator) and Larry Mazza (CTPM) has been formed to develop a strategy to improve process capability of the manufacturing operations and work specifically on PCE vision, measurement & data analysis as well as organisation structure.

Their findings will be reported in a future edition of TPM's Shout.

CYCLE 14

The Site TPM³ Leadership Team has agreed on the following teams for Cycle 14, which kicks off soon.

- Innoket labeller Micro FE&PI
- Bottling line – Filler end OEM-2
- Bottling line – Packer end OEM-2
- Palletiser Micro NEM (5 weeks)
- Can filler Micro NEM (5 weeks)
- Process Capability Excellence Leadership Team
- Maintenance Excellence Leadership Team
- Stores Micro MIT

WOOLWORTHS GIVES TOP QA MARKS TO COOPERS HOME BREW

Leading supermarket group Woolworths has given Coopers Home Brew top marks for achieving high quality assurance standards.

Coopers passed a quality audit undertaken by Woolworths in April and was presented with a Certificate of Attainment for meeting Woolworths Quality Assurance (WQA) standard.

The strict audit recorded no "non-conformances" with the high level WQA, which is an exceptional result.

Coopers was also commended for its good systems and cleanliness in the audit.

"We place great emphasis on our product quality so this is a fantastic result for Coopers and a great independent endorsement of what we are doing here," Coopers Operations Manager, Nick Sterenberg said.

"It is quite unusual to record full marks in such strict independent audits, so to do so was particularly pleasing and testament to the Home Brew product and the efforts of everyone involved in its production and packaging."

COOPERS RECOGNISED AS AN OUTSTANDING EMPLOYER

Coopers Brewery has been recognised as an "outstanding employer" for its commitment to return-to-work programs.

Employers Mutual, WorkCover's sole claims agent, has acknowledged Coopers' exceptional performance in minimising claims costs over the past three years.

In recognition of this and to encourage future performance, Employers Mutual has presented Coopers with a \$10,000 cash incentive.

The success of Coopers' return-to-work program was also recognised at an official Employers Mutual function in May.

"We take the health and safety of all our staff extremely seriously at Coopers and we are proud of our strong track record in this area," Coopers Managing Director Dr Tim Cooper said.

"We will invest this cash incentive back into our work safety program."

Employers Mutual is committed to improving the performance of the WorkCover scheme in relation to claims and injury prevention.

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MACRO FE & PI TEAM REPORTS

Bottle Magic on bottling line

The Macro FE and PI team "Bottle Magic" has completed its task of identifying equipment and process losses, including unplanned interventions, for the beer bottling line.

Over a 12 week period beginning in January, Bottle Magic team members, Robin Vanstone, Massimo Piantedosi, Tom Bullock, Dave Tanner, Terry Santucci, Carmel Lineage, Craig Seaward, Larry Mazza (CTPM) and Gilbert Bruton (Coordinator) undertook root cause analysis, including line operator surveys for various machines, to pinpoint problems and identify possible solutions.

Based on this information, the group initiated and carried out a series of improvement projects to meet efficiency goals.

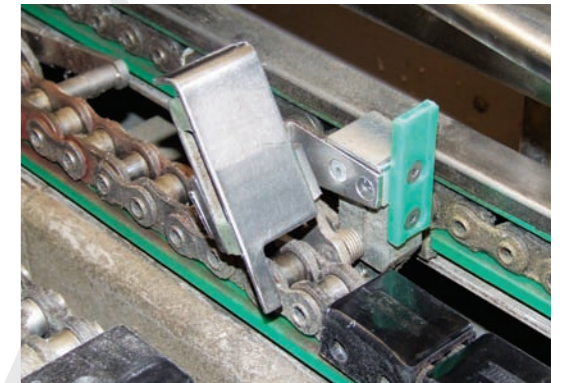
These included measures to improve labeller, packer and filler operations.

Labeller Improvement Projects

Team member Terry Santucci identified a problem relating to jamming of the labeller magazine. Adjustments were made so labels are now contained in the magazine resulting in fewer labels sticking to the glue roller and causing jams or drop outs. This means less downtime, raw material loss and operator frustration.

Operators reported difficulty in removing the glue pump air line supply. Values were added that now allow the operator to turn the air off and remove the pump easily.

The operators had also reported a problem with machine fault lights which made fault identification difficult. A new set of lights was installed for better visibility resulting in quicker operator response time to faults and therefore less downtime.



Carton Packer

Robin Vanstone initiated a project involving the labeller out-feed rejector conveyor, where multiple bottles were all being "binned". Improvements were made so that rejected bottles are now put onto the conveyor to be sorted, with good bottles re-worked accordingly, minimising beer loss.

Other improvements in this area include development of a standard operating procedure for cleaning the labeller, the training of another operator, visual quality check on labels before use and adjustment of the Automatic Labelling Magazine.

Future improvement projects were identified and include installation of a labeller singuliser drop-off table, the needs for a KHS technician visit, which occur during the week commencing May 5, installation of an out-feed mirror, label glue viscosity checks and verification of label specification standards.

Packer Improvement Projects

Bottle Magic team member Carmel Lineage initiated improvements to the carton pusher assembly to prevent the incorrect tucking of carton flaps, which causes cartons to open up. A plastic strip was installed to hold the carton in a position to correct this procedure, reducing the need for micro-stops and preventing open flaps going out to customers.

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Packer Improvement Projects cont.

Other improvement measures included recording hourly OEE on the packer noticeboard, reduced carton tabs that cause minor packer stoppages and better understanding and programming of pack in-feed problems.

Future improvement projects were identified to include fine-tuning the programming of the packer in-feed problem and training of carton quality standards with Amcor.

Other improvements

- Support of the Stratec mounting at the KHS filler was strengthened to eliminate false height rejects.
- Modification of filler singuliser guide rail.
- Filler hot water flushes interval increased from 60 minutes to 90 minutes.

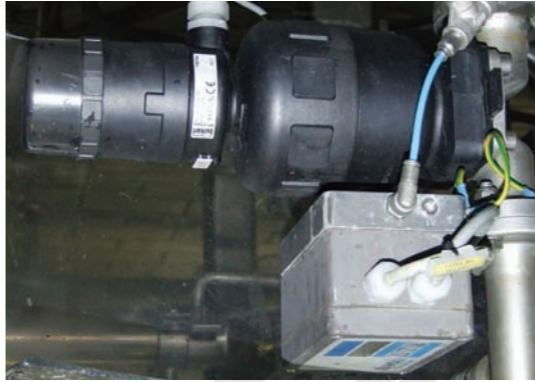
A system for accurate data collection and analysis is also to be re-installed.

The statistics tell the story of success Bottle Magic generated an improved OEE from 62% to 68% (as at April).

With further improvements identified, that figure is expected to rise to 76%.

Special thanks

The Bottle Magic team wishes to acknowledge the effort and contribution of university engineering student Adam Tunney, who was on work experience at Coopers and was involved in data collection for this improvement program.



Burkett Valve and gate lock

RACK N' ROLLERS IMPROVE KEG LINE EFFICIENCY

The Rack n' Roll team was presented with the challenge of improving keg line efficiency and identifying opportunities for further gains.

And they delivered.

After identifying and implementing several production modifications, the Rack n' Roll team of Pat Varricchio (Team Leader), Dave Medlyn, Robin Howe, Simon Fahy, and Larry Mazza (CTPM) was able to report in March that significant improvements in keg rejection and keg line rates had been achieved.

The team's mandate within the 10 week period had been to:

- Review all equipment and process losses relating to the keg line.
- Increase OEE on Ales and Stouts while improving or maintaining the agreed counter-balance measures.
- Recommend further loss-related improvements to the leadership teams.

Rack n' Roll undertook a review of the keg line and bottling hall, developed a vision for improved performance and then identified possible root causes and solutions.

Improvement projects were centred on the robot access gates, Burkett valves and the sterile air filter.

Keg robot area

Team member Doug Connor identified a problem with the robot access gates. An interlocking system was installed on the gates, which previously were padlocked only. This achieved the aim of ensuring the robot is isolated before gates can be opened.

Burkett valve

Team member David Medlyn identified that 2.4% of kegs were being rejected for under fill. This was considered excessive.

Investigations found that the Burkett valve was not being calibrated on a weekly basis as recommended by the supplier. Steps were put in place to calibrate the valve at the start of shift every Monday and recorded on a daily production sheet.

This resulted in the rate of kegs rejected for under fill dropping from 2.4% to 0.4%.

Air & CO2 filter for Keg filler

Team member Martin White identified that there was no maintenance program to replace the filter on a regular basis, which could lead to quality issues.

To rectify this, a new filter was installed and a three-monthly check put onto Mainpac to ensure regularity of checks and replacements. This resulted in improved air and CO2 supply to the keg filler, reducing keg rejects and providing better quality of gas supply.



Robot Line

Impressive results

Following the implementation of the above measures, the overall keg rejection rate was reduced from 2.3% to 0.5%.

Previously the base line keg line rate was 147 kegs per hour – made up of 72 kegs per hour for Line 1 and 75 kegs per hour for Line 2.

This has now risen to 154 kegs per hour with both lanes operating at 77 kegs per hour.

OEE was increased from 67% to 73.5%. Other improvement projects have included:

- After power failure defaults added to Coopers standard keg settings.
- A revised fault matrix screen with better defined alarms.
- Raising the maximum rate of the keg robot to 170 kegs per hour, up from 155.

MOVING TOWARDS PROCESS CAPABILITY EXCELLENCE

The recent round of the TPM's program (Cycle 13) coincided with the start of the Process Capability Excellence (PCE) initiative. Two PCE awareness workshops have been conducted at which 20 Coopers Operations staff rated the brewery's operations across a range of categories from measurement & data analysis and product quality management to human resources and problem solving capabilities.

For Coopers to achieve PCE it needs to:

- Understand natural variation of its raw materials, intermediate products and process.
- Have basic equipment conditions for all plant and equipment in a process.
- Achieve standardised work across all processes and shifts.
- Have well-designed, operated and maintained control systems.
- Engage all employees undertaking continuous improvement.