

Handing Quality Control to Operators!



Are your operators conducting quality control checks on their equipment? See how Coopers Brewery implemented a plan to make operators Quality Control Specialists!

With the mandate of handing over where possible all Quality Control (QC) checks of the Rinser, Filler and Crowner (RFC) to the Operators, a Micro Focused Process Improvement (FPI) Team was formed to review, investigate and develop a successful approach.

As always the team commenced by analysing the current situation, which involved reviewing who, how and what QC checks were being conducted. The existing practice found that some QC checks were being conducted by RFC Operators but the majority were by the Laboratory Technicians. A summary of their analysis is shown in Figure 1 below.

Figure 1: Summary Table of QC Checks conducted

Operator Test		Lab Test	
☺ Torque Test	Start of order	⊕ Accurate Volume Check	Start-up & Product change & after adjust. Pre start rinse
Volume Check (Rough Check Only)	Start-up & Hourly & after adjust.	⊕ Highlight Check on DA Water	
Bright Beer Visual "Air in Head"	Start-up & Hourly & after adjust.	⚠ PAA Test Rinser positive check	Pre start rinse
☺ Crimp / Seal Test	Start of Order	⚠ PAA Test Bottle residual water negative	Pre start rinse
		⚠ Sample bottle for micro testing	First off bottle for each Product change
		⊕ Air in Head space	Start-up & every 2 hrs
		⊕ DO	Start-up & every 2 hrs
		⊕ CO ₂	Start-up & every 2 hrs
		⊕ TPO (inclusive CO ₂ , DO)	Start-up & every 2 hrs
		⊕ Torque test average	1hr after Start-up

☺	Recorded on Torque test sheet / MES
⊕	Recorded & Feedback to Operator / on Unilab
⚠	Daily Lab Sheet
⚠	Proposed checks that could be done by the Operator in the future
ABC	SOP required

From this review, the team was able to further investigate and analyse each QC Check in order to gain a better understanding of who should be responsible. After much deliberation, they reached consensus on which QC checks were to be handed over to the operators (highlighted in Yellow above).

At the Mid-point presentation to the Site Leadership Team the proposed changes were discussed and all but one of the changes was approved for action. Now that the QC checks had been approved, the team needed to develop a capable process for handing over the checks to the RFC Operators.

They identified the following 4 key areas that had to be reviewed and updated or implemented (where needed) to ensure a successful and trouble free handover:

1. Simplifying and Updating Standard Testing Procedures;
2. Testing equipment and work area requirements;
3. Data and record keeping requirements; and
4. Education and Skills Training.








Figure 2 – New Test bench installed at RFC



In order to satisfy key area 2 (Testing equipment and work area requirements) a new test bench was installed at the RFC machine (as seen in Figure 2 above), which allows tests to be conducted at the machine in minimal time.

To satisfy key area 4 (Education and Skills Training), the team developed training materials such as One Point Lessons, Job Aids (Refer to Figure 3 below) and a Training Plan to support the new checks to be conducted. The training would be delivered using the 4 Step Method (Educate, Demonstrate, Practice and Review) which has been a hallmark of Coopers past TPM³ teams success.

Figure 3 – Hylite Testing Job Aid

Job Aid – Changeover				
Machine	Filler	 -Hazard	 - Tools required	 - Assistance
Task	Hylite testing	 - Lock out	 - PPE required	 - Reference
Major Step	Key Points		Reason for Key Point	Photo / picture / diagram
1 Sampling	1.1	Remove the plastic cap from the pen – exposing the sample stick	Plastic cap is to prevent any contamination of testing point.	
	1.2	Dip pen into sample – duration 1 second		
	2.2	Forcefully strike the sample stick / pen onto a clean surface – forcing the stick into the second chamber of the pen.	To drive the swab / testing stick into the reagent. (testing liquid)	
	2.3	Shake the pen vigorously for 10 repetitions	To ensure proper mixing of the reagent	
2 Reading	2.1	Lift lid to reader and place pen (coloured tip down) into the reader		
	2.2	Close lid and wait for result on worksheet and in MES		
3 Action 	3.1	Repeat test if result is higher than set limit (>100)	Repeating the test confirms the result	
	3.2	If second test is required and sample fails again, notify team leader / supervisor	Notify team leader to make a decision regarding the failed tests.	

On behalf of CTPM we congratulate the team on their efforts and results so far. We look forward to supporting the team in their continual quest of the RFC Operator handover and are certain that upon completion they will achieve greater success.

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