## Case-study of

# Competitive Manufacturing

## *ALSCO NZ*

## *Christchurch, December 2010*

# Case Study Summary

Competitive Manufacturing (CM) was chosen as Alsco NZ's improvement methodology.

**Why:** Alsco NZ needed a straight-forward process to:

- reduce waste
- increase efficiency
- encourage individual and team participation
- increase communication between departments
- recognise health & safety issues
- develop awareness of internal and external customer concerns

The expectations were that when all of the above were applied that in turn would focus staff and ultimately improve Alsco's internal and external customer care and service.

**Who:** 80 Alsco NZ employees were involved in the CM journey. QCDSystems were contracted as the preferred CM coach for the first 15 months. ATITO delivered a level of support funding.

**What:** Nationally recognised CM qualifications were chosen to develop staff skills at all four branches of Alsco NZ, to improve the business by using the CM structured methodical program of learning.

**Where:** At four of the branches Alsco NZ and the Support Centre were involved with improvements, while TRY-Z training was conducted off-site.

**When:** The branches started their journey in February 2010 and it continues every day.

**How:** The coach typically spent one day per month on site.

**How much:**

- DIFOTIS[1] improved by about 69% by concentrating on the flow of product through the different process steps on site (Christchurch branch).
- Some stations dropped their inventory by 50%.
- Some mini-teams improved their productivity by 150%.
- Training engaged 80 staff members, with 23 Limited Credit Program trainees (refer Page 7) signed up for five unit standards and an expected completion rate of 90+% by May 2011.
- The time commitment required by staff was the largest investment, but was beneficial to all seen in the light that it both improved business measures and developed staff. The total investment added up to 1,710 hours over a 37 week period until the end of November 2010 (average of 2.6 hours per week per person) including training, coaching, assessment of unit standards, and actively working on improvements.
- The total number of hours invested to complete the first round of Limited Credit Programs was about 4 hours per person per week over 60 weeks.

**Sustaining CM:** Staff at Alsco NZ had fully embraced their commitment to CM by candid communication over a value-stream they were now in control of. Standard practice was being recorded by the team members using the Detailed Process Sheet (DPS) format, followed by training using the DPS. Up-skilling of staff in CM practices will resume in 2011 and eventually all staff should have some level of CM qualification.

[1] Delivery in full on time in spec

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## Background

Alsco NZ, previously known as NZTS, has been operating in New Zealand since 1910.

Originally a laundry rental Company, NZTS pioneered the introduction of many products into the New Zealand market, e.g. the continuous towel cabinet, rental mat systems and rental uniform systems. During the early 1980's NZTS also began venturing into the washroom market adding sanitary hygiene equipment, air fresheners and WC/urinal sanitizers to its product range. This effectively positioned NZTS as a serious player in the washroom and consumables market.

The NZTS business grew strongly. In 1999 the decision was taken to split the washroom business out from the traditional business, in order to provide greater focus and enhance customer service. As a result of the resounding success of this split the company decided to re-brand the washroom business unit as "FRESH & CLEAN".

NZTS was predominantly under private ownership until Alsco NZ was formed in 1998 when NZTS was acquired by the Steiner Corporation. The Steiner Corporation, also a privately held company, owned operations throughout the world and was headquartered in Salt Lake City, Utah.

Focused on expansion, in 2006, Alsco NZ introduced their managed rental first aid systems. Since then they have expanded these services to include a more diverse range i.e.: vehicle kits, civil defence, and other options.

At time of writing the parent company Alsco Inc. was an internationally owned business with offices in Canada, United States, Brazil, Germany, Italy, Switzerland, Singapore, Australia and New Zealand employing more than 16,500 individuals. In 2010 Alsco NZ employed about 750 staff across 25 branches (including depots).

The Christchurch branch of the Alsco NZ business is the main focus of this case study. In 2010 the Christchurch branch employed an 89 strong team and serviced about 3200 customers throughout the Canterbury and West Coast regions of the South Island.

## Situation

In 2008/09 the Alsco NZ Christchurch regional branch faced a number of internal and external issues. The Apparel and Textiles Industry Training Organisation (ATITO) introduced Alsco NZ senior management to the opportunities provided by Competitive Manufacturing (CM) qualifications.

The branch management perceived the CM qualifications' value in their simplicity to engage staff on the floor while providing a systems structure for improvement. In turn staff benefited from the programme by achieving sought after nationally recognised qualifications. They recognised the CM qualifications were a system that would free up management by empowering staff and managers alike with tools and techniques for problem solving at appropriate levels. Ultimately this would allow senior managers to spend less time fire-fighting minor issues and focus on putting systems in place preventing these issues in the first place.

Some other issues Alsco NZ wanted to address:

- The level of accountability of each staff member in their role had slowly slipped over time. Staff had to become accountable for their actions, but to bring this about and be successful employees also had to gain new skills to meet this 'raised' expectation.
- Whilst standards for many tasks had been set, those standards in quality, delivery and productivity had not been met on a regular and expected performance level.

Engaging staff to the level where they are in a position to set their own SMART targets was the long term vision of Alsco management.

## Developing an ATITO strategy for industry

The apparel and textile industry has traditionally supported national qualifications with a high proportion of on the job learning and assessment. The learning was supported by industry trainers and approximately 80 ATITO registered workplace assessors, plus a small number of contracted assessors.

The benefits of this mode of workplace learning included:

- increased participation and motivation of staff,
- flexible learning that allowed individuals to progress at their own pace,
- learning designed for the workplace by people in the workplace,
- affordable and achievable learning.

However recent company feedback suggested training towards national qualifications was only relevant if that learning lead to increased productivity of the employee. In other words, a highly motivated and qualified employee is not necessarily highly productive, particularly if the workplace operating systems are inefficient or poorly designed lacking the principles of lean manufacturing.

As a consequence an increasing number of businesses recognised the value of having their workplace productivity assessed first, in order to have well informed training plans developed. This increased engagement with businesses around raising their productivity has assisted a greater understanding and participation by employers into training in the National Certificate in Competitive Manufacturing Level 2. This approach had a further benefit for employers in that in most cases all staff were involved in the training at a team level and were therefore able to support their colleagues achieve the agreed improvement targets.

During the past 3 years prior to writing this case (2010) the ATITO engaged an increasing number of specialist training providers operating in the area of raising workplace productivity and CM to service the increasing need for these skills. Experience over this period suggested to ATITO that committing companies and their employees to medium term training had not delivered the desired outcomes in CM. In using a Limited Credit Programme (LCP) the ITO has been able to identify and develop a small package of training and standard outcomes that link to the National Certificate in Competitive Manufacturing at Level 2. This provides an introduction to CM for the organisation as a whole and allows staff to complete a small programme as an introduction to a larger programme directed at completing the National Certificate. Companies have found that their knowledge of CM develops rapidly and training needs evolve in this time. At the completion of the LCP the companies are in a much better position to commit to a larger programme of training tailored to their identified needs.

## Unit standards used in the Limited Credit Programme (LCP)

Table 1 lists the details of the unit standards included in the LCP referred to in this case study. Further information can be obtained from the NZQA website at www.nzqa.govt.nz .

**Table 1: Details of all unit standards referred to in this case study.**

| NZQA ID | Title | Level | Credit |
|---|---|---|---|
| 21501 | Apply competitive manufacturing practices in a competitive manufacturing organisation | 2 | 5 |
| 21502 | Sustain process improvements in a competitive manufacturing organisation | 3 | 3 |
| 21503 | Manage the impact of change on own work in a competitive manufacturing organisation | 3 | 3 |
| 21507 | Interpret product costs in a competitive manufacturing organisation | 3 | 5 |
| 21508 | Apply 5S procedures in a competitive manufacturing organisation | 3 | 5 |
| 21515 | Undertake root cause analysis in a competitive manufacturing organisation | 3 | 5 |

## The partnership model facilitated by ATITO

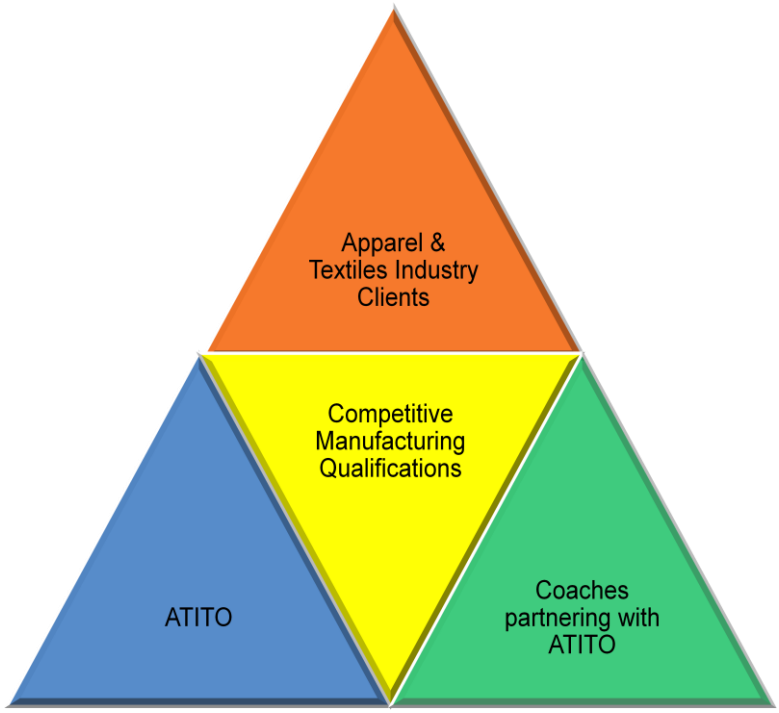


**Figure 1: Partnership model facilitated by ATITO**

The model was based on a partnership between the three stakeholders; ATITO, QCDSystems (CM coach in this case), and each respective client business. Each stakeholder both delivered and received mutual benefit from the partnership. The model existed around the centre triangle, the CM qualifications:

- ATITO delivered a level of support funding while receiving completed CM training agreements.
- QCDSystems delivered knowledge and completed assessments of the staff whilst receiving financial compensation for their work.
- The client companies invested heavily in time commitment from all of the staff, leadership commitment to supply resources for continuous improvement and tenacity to stay with the journey to eventually complete the qualifications, while receiving benefits in improving quality, reducing cost and waste, decreasing delivery times, improving safety and engaging staff with higher levels of morale.

## Beginning with TRY-Z, and continuous coaching

The *Try-Z* Seminar was used to introduce a company and its staff to the process of implementing Lean Manufacturing, management principles and practices into their organisation. The seminar derived its name from a process known as 'Trial Zero' in the automotive industry that was used to introduce model changes or new models onto a production line. The purpose of the Trial Zero was to demonstrate, test and finally confirm that the new models/changes can be produced with defined efficiency and productivity parameters.

This process was translated into a 3 day seminar during which the participants were charged with using Lean tools such as procedures, measurements, ideas and suggestions, tolerances, jigs and tools, housekeeping, and line balance to be given a hands-on experience of how it worked. The participants used these tools to produce 15 model cars made up of 68 different parts each to defined standards, through experiential learning.

Participants were given the opportunity of running three production runs of 15 units. Production units were completed at six stations, using different operators each run. The change of operators was another example of the transfer of knowledge and expertise that demonstrated how Lean principles enable people to control their processes and therefore their outputs.

After each 'run', many aspects of the produced model were discussed as a group. These discussions encompassed items such as defined dimensions, customer quality appearance standards together with unit times, elapsed time, bottle-necks, and station issues.

The solutions arrived at were based on their new Lean knowledge and the application of the Lean tools. It was not uncommon to obtain a success rate of between 89-100% Quality improvements at the same time obtaining 20-33% productivity improvements with a 3-5 point performance standard met.

The outcome of the seminar was the understanding by each participant that when Lean principles are applied correctly they would help the staff to improve their work environment irrespective of what tasks they perform. The learning was not restricted to manufacturing in any way. Once they had learnt the process and how to apply it, it could be applied to any situation. Many of the administrative staff in manufacturing businesses also used these principles to improve the complete value stream.

After the seminar the participants returned to their various departments and implemented the process known as QCDSM, utilising the learning they had experienced in the forum known as the Green Room meeting as the core of continuous improvement.

**Figure 2: The TRY-Z experiential learning seminar**

**Figure 3: The experiential learning model car**

# Overall implementation of CM within Alsco NZ

## CM trainees and starting dates

It was the strategic intent of Alsco NZ to engage every site and most staff members into completion of CM qualifications over a few years. Sites were prioritised based on urgency of need pertaining to each regional situation. Alsco contracted QCDSystems as CM coach supported by ATITO to catalyse each site's CM journey.

**Table 2: CM trainee numbers and starting dates**

| Site | Start date | Number of CM training agreements |
|---|---|---|
| Christchurch | Feb/2010 | 23 |
| Invercargill | April/2010 | 15 |
| Auckland | May/2010 | 20 |
| Hamilton | May/2010 | 16 |
| Support Centre | May/2010 | 6 |

## Embracing the Alsco values through engagement

As part of the company Vision launch during July 2010, the Christchurch team took the values generated by Alsco NZ and attempted to make them more understandable. This process involved dividing the staff into seven groups of seven people with each group given the task of defining one of the seven values. During this process approximately 2,500 ideas on what exactly the values meant and associated behaviours were debated by staff. After presenting what the value meant, the most prominent words of understanding were recorded for all to use as a guide for behaviour and actions.

The values spelt **PASSION**:

**P = Productivity** = KPI's and targets reduce waste
**A = Accountability** = take ownership of your actions and have recognition for good work
**S = Success** = meet deadlines by proper procedures and training
**S = Safety** = take it seriously by identifying hazards and entrench as part of standard procedures
**I = Integrity** = honest with all stakeholders and keep promises
**O = Originality** = seek new solutions to old problems and implement the solutions
**N = Nurture** = personal development through training and good feedback to each other

## The system of change, effective communication

The change mechanism was underpinned by effective communication within and between teams. A simple three tier structure has been put in place that all employees of Alsco NZ were part of.

### The system

Effective communication required a simple eloquent system everyone could understand and use to improve overall results. The heart of this change started on the shop floor where teams gathered every morning for 10 minutes in what was termed the Green Room meeting (first tier level of communication). The team leader chaired this meeting utilising visual management tools to illustrate the team's situation. This could also include a review of the previous day's performance and a quick outlook on the day ahead. The formula which was in the balanced scorecard format followed the Quality, Cost, Delivery, Safety, and Morale facets of the organisation.

The second tier level of communication took place when team leaders met their respective managers at 7.30. In this forum the team leaders could share their respective situations and decide on necessary actions to achieve smooth operations for the day. Typically these were also 10 minute meetings but raised the issues that team leaders needed resolution on, especially where they impacted on other teams.

Once a week the site manager and his managers held a third tier meeting to review the past week and month to date, whilst planning for the month ahead and where necessary the upcoming fortnight in more depth.

This new system provided a new level of structure and reporting discipline that had been missing in the past.

### Continuous improvement of visual management in the Green Room

The teams have continuously improved their visual management information. This was only possible with the team members being engaged in their work and by benefiting from daily Green Room meetings. At time of writing (2010) team members were actively reporting near misses which was a highly uncommon practice only a year earlier.

**Figure 4: Early sets of Green Room documentation, (March 2010)**


**Figure 5: Nine months later shows engagement in graphs and ideas as teams take increasing ownership of their Green Room. (November 2010)**

## The second tier daily meetings

Following on from the Green Room meetings two second tier meetings were held daily, one for service and customer care staff, and the other for co-ordination of three production teams. The white board (see Figure 6 below) recorded major issues requiring attention to ensure smooth flow in production. These issues were visible and known to all and co-ordinated action followed to ensure resources were available at the right place and on time. All recorded items were usually actioned immediately and the production manager followed up to make sure a resolution was found. Decisions made at this level typically addressed more of the systemic issues for smooth flow of operations.


**Figure 6: A simple effective visual management board used by the operations team to highlight bottlenecks preventing smooth flow**

## Responding to internal customers

Everyone within Alsco had been familiar with the concept of external customers and understood who they were. However it provided a new way of looking at the relationship between internal teams as those of internal customers and responding to their needs. Each team carefully determined who their internal customers were and which product or service they supplied to them.

Once all internal customers were established the management team checked to ensure no important relations where missed and a new system of Internal Customer Concerns (ICC) was initiated. This process counted how often each team received 'defects' from their suppliers.

These 'defects' were recorded, plotted as a graph across time, and passed back to the suppliers. The supplying team was then tasked to determine the root causes for the defects. As the Green Room meeting captured these defects at the first tier, they were passed on to the respective teams at the second tier meetings within 30 minutes every day.

By establishing an effective communication system, these internal customer concerns could now be actioned quickly. Without an established communication system, teams would otherwise not know how to attend to internal customer concerns and improvement would have been ad hoc at best.

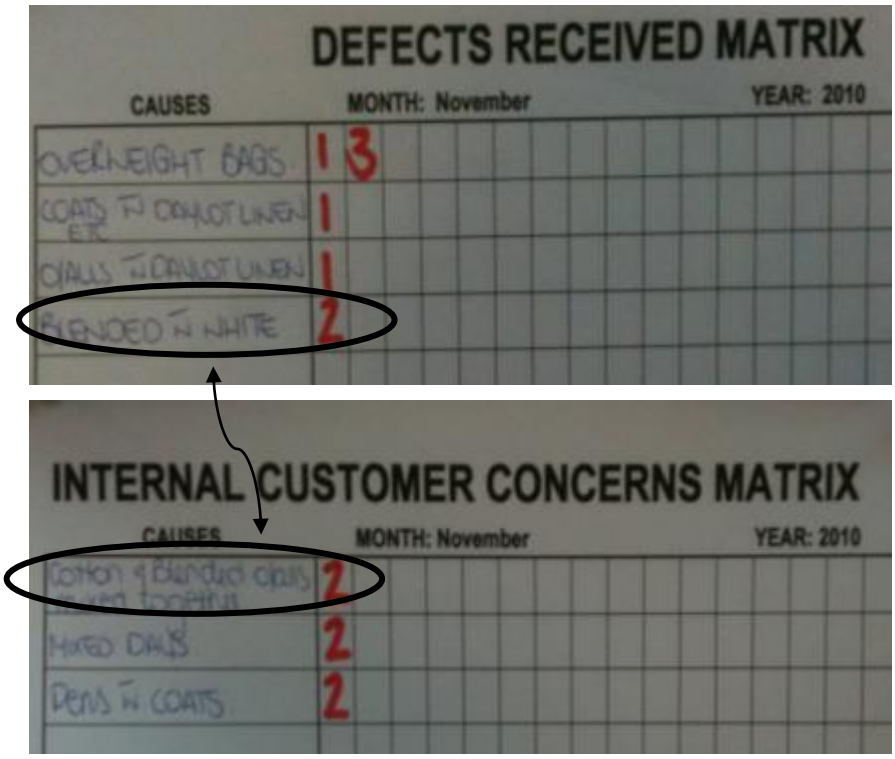


**Figure 7: Defects received from internal suppliers were recorded on this simple sheet of paper (cause & date). This captured trends over time and gave feedback to the supplier.**

**Figure 8: The supplier correlated the 'defects received'. This was evidence the communication and visual management were working.**

*"We have come away from a blame culture to one of a fact finding culture. We now actively seek to solve problems through good questioning of the process. "*
**Mike Kent, Service Manager**

*"Through good and improving communication now, we understand the whole process, not just our own little patch. We also know that each team member is equally important, irrespective of their role. To achieve our goals and a positive result we have to work together."*
**Glynda Tuttle, team member**

*"The Try Z methodology with the accompanying Green meeting process is a great way of empowering people whilst maintaining sufficient control. The system leads people to work on the really important things and not just what pushes their buttons."*
**George Rowe, Site Manager Christchurch**

**Specific skills and tools used were:** QCDSM measures, check-sheets, customers and suppliers, workplace improvement, visual management, recording data effectively, brain storming, capturing ideas, improvement sheets, photos as records, role of leaders and recording of standard practice by a DPS.

# Improving product flow

## Simplifying the internal value stream

Quality guru Philip Crosby popularised the phrase *'All work is a process'*. Womack and Jones the inventors of 'Lean' established five Lean principles; *Perfection, Pull, Flow, Value stream and Value*. These pioneering concepts are encapsulated in the competitive manufacturing qualifications. The Christchurch branch of Alsco NZ realised they had to improve flow between processes. With ever improving communication flow all teams were now armed with CM skills to focus on improving the physical flow of products.

Each of the following five process steps will be used in this chapter to reveal how Alsco NZ has achieved better flow.

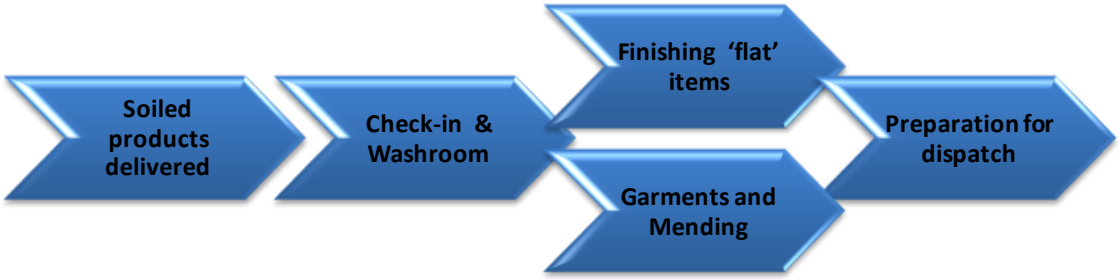


**Figure 7: Simplified value stream/product flow diagram (December 2010)**

## Improving the delivery of soiled products

The internal customer concerns (ICC) system enabled the 16 service delivery personnel to identify the root cause of any defect registered by the system. Their investigations have uncovered that in fact the current processes caused many defects, some of which would only be found at final quality inspection prior to the clean product leaving site.

The team drew up a Detailed Process Sheet[2] (DPS) system capturing the best practice to enable the team to consistently meet requirements by following the newly defined standard practice from now on.

Criteria covered by the DPS (excerpt see Figure 8) included:

- Attention to detail in simple observations such as
    - Double-check laundry bags are not damaged,
    - Labelling of bins
    - Sorting of products into bins.

In case the DPS was not followed for this process step (delivery of soiled products) then this could have detrimental consequences, some of them extremely costly.

[2] A Detailed Process Sheet (DPS) is a living document in that once it is implemented as the 'standard' for a process; it becomes the basis on which gradual and continuous improvement is built. (Source: qcdsm.com)

**DETAILED PROCESS SHEET**

| Description | | SUMMARY PROCESS SHEET | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Unloading Trucks | | Department | Service | | | Number: S3 | Description | |
| Number S3c | | Author: GM, KH, TB, MH, SJ | | | | Date Written | Unloading Trucks | |
| | | Document # | | | | 22/06/2006 | | |
| # | OPERATION ANALYSIS | # | MAIN STEPS | Q | S | E | # | KEY POINTS | DIAGRAMS |
| 18 | Place all soiled items in labelled bin/ | 7 | Unloading of mops, | | | | 1 | Soiled items in | Refer to Picture |
| | cage, located in loading bay. | | DustCloth,Seatcover, | | | | | labelled bin/ cage. | |
| | | | Industrial wipe, | | | | | | |
| 19 | Keep an eye out for damaged stock, | | Starbuck cloth, | | | | 2 | Check for holes, ripes | |
| | i.e.any holes, ripes or badly marked items. | | Kitchen cloth, | | | | | or bad marks/ stains. | |
| | | | Wiping cloth, | | | | | | |
| 20 | Do not place full bags product in bin, | | Food wipe | | | | 3 | Empty full bag, place | |
| | empty and place empty bag in bin | | Bath towel | | | | | empty bay in bin | |
| | provided in loading bay. | | Hand towel | | | | | provided. | |
| | | | Guest towel | | | | | | |
| | | | Tea towel,Bath mat | | | | | | |
| | | | Face cloth | | | | | | |
| | | | | | | | | | |
| 21 | Take soiled bags of Linen Sheets and | 8 | Unload Linen sheets | | | | 1 | Soiled Linen Bags and | |
| | Pillow slips to hoist at the begnning of | | and Pillow slips. | | | | | Pillow Slips to hoist. | |
| | rail system. | | | | | | | | |
| | | | | | | | | | |
| 22 | Ensure strap in bottom of bag is not | | | | | | 2 | Strap must be in good | |
| | damaged and in need of repair. If so, | | | | | | | condition, if not place | |
| | place in another bag. Empty bags can be | | | | | | | inside another bag. | |
| | obtained from the plant. | | | | | | | | |
| | | | | | | | | | |
| 23 | Place bags on hoist. | | | | | | 4 | Hang on hoist at | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |


**Figure 8: Part of the DPS developed by the team. It also acts as training document to ensure conformance to requirements and flow by all team members.**

## Improving the check-in and washroom processes

The sub-process of *washing* was a good indicator of ongoing process improvement. As the washing machines ran on set programs for different products and soil levels, there was little that could be done to speed up the washing time. However the loading and unloading of washing machines was typically influenced by a variety of factors. This was what the team focused on.

The team tried to always have full sets of bags ready to be fed into the washing machines. They found they required more overhead rails for bags so they had more flexibility to optimise loads quickly. In this case **more flexibility** in feeding the washing machines meant **less waste** through waiting and unnecessary movements during (un)loading.

To ensure there was constant volume being pulled through the washing machines the team dissected all of their activities and the levels of productivity required for various tasks. They established performance measures and the number of team members required throughout the day for various tasks to ensure smooth flow. The visual management system (see Figure 9) illustrates the performance levels possible for a team empowered by CM tools and thinking.

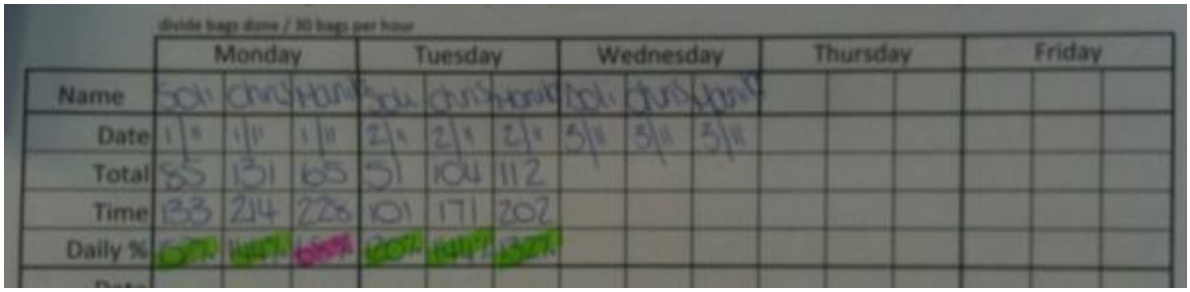


**Figure 9: A typical visual log sheet used by the team to record their individual performance.**

**Chantelle Sadler, team member**

*"I found that many of the staff that had been on the TRY-Z workshop came back with all kinds of ideas. I like to see things improve and didn't want to get left behind, so we share all the ideas around to make work easier for all of us."*

## Improving the 'Finishing' process

The Finishing process prepared all items (other than garments worn by customers) for dispatch. Being the link, the finishing team often found itself torn between product demand from the dispatch team and lack of supply from the washing team.

Streamlining the flow across all three processes was an opportunity they were now armed to tackle. The challenge was to determine how to control flow evenly by knowing what the demand for various products would be for each day, while not allowing any product inventory to build up.

Most of the product was drawn at the beginning and end of shifts. This meant that if inventory was counted in the morning and the demand for the next day was also known, then the difference had to be the production quantity or 'top-up' for the day. The team leader started sharing this information with both the finishing and the washroom teams. Based on this formula a schedule for the day was developed which catered for constant flow.

The bigger picture ('supply and demand across all three teams') was no longer only known to the manager, but was also understood by the individual teams. The schedules were displayed at each machine centre and plan versus actual could be monitored by everyone.

Another example of improvement in the finishing area was a simple change in finished product storage (see Figure 10). Vertical storage of continuous towels made it easier for the service delivery team to identify and load clean product.

**Figure 10: Simple vertical storage of continuous towels - Vertical storage made it easier to see what type of towel was in which bag.**

## Improving the garments and mending process

### Creating one garment mending cell, by redesigning layout

Mending of garments was done by two professional menders, which was a key role in maintaining the garments for customers.

The cleanliness of garments used in the food industry was paramount. Therefore the two mending machines (used for different purposes) were placed at opposite ends of the building to avoid cross-contamination of garments. This had the undesired effect the two professional menders would work alone for extended periods. They were often unaware of changes to each other's priorities and workload.

The garments and mending team decided to relocate the two team members into the same 'work-cell' to optimise flow of product and communication about workload. This resulted in significant decreases of waiting times, unnecessary transport, and human motion, three prominent forms of waste recognised by competitive manufacturers.

### Creating flowing work areas, a work in process task

The storage solution for new garments was being worked on in an attempt to achieve improved flow. As one measure the team reduced the number of trolleys by 50% in certain areas (see Figures 13 and 14). Even though it seemed counter-intuitive the reduction of trolleys has resulted in better flow as it created more space to move, simply because the trolleys were no longer 'in the way' or there to put things into. As flow of the product was tracked the team found that when there was a trolley empty they wanted to fill it.

*"The biggest gain by investing in the improvement of flow in this team is that it has now become one team with many roles, rather than a group of staff with a number of jobs. This was not the intention to start with, but has been the biggest and most welcome surprise".*
**Aaron McConnochie, Production Manager**

**Figures 11 and 12: Re-organising the garments store , mainly through elimination of some trolleys, has freed up space to access stock**


**Figures 13 and 14: Before and after, organising new stock for ease of storage and retrieval**

## Improving the dispatch process

Alsco's Christchurch based service delivery personnel prepared for their 18 daily delivery routes from 6.50am in the morning starting the day with a Green Room meeting. The main purpose of this meeting was the co-ordination of all routes, team members, and delivery trucks. The quality of feedback shared with the production teams at these meetings has encouraged smooth flow of product to the customer. Over the course of the CM journey the KPIs for product delivery in full on time within specification have substantially improved (see Figure 18).


**Figure 15: The nerve centre of every morning's Green Room meeting for delivery personnel, the visual management board**



**Figures 16 and 17: Before and after - Finding garments in the earlier arrangement could take some time, while each trolley now had a simple clear route marker.**

*"I am a cheese maker by trade, and learnt there that the process must flow to ensure great cheese is sold to the customers. When I first joined Alsco Christchurch I saw congestion and flow was difficult and slow. CM has given the team many of the insights and tools to use to make flow easier, so I am not the only one with the knowledge. Now all team members have a good feeling of what can be achieved if the process flows. It is great to see how many team members have taken improvement seriously and have made work easier and safer. We have been fortunate to also be in a position to make some serious process changes and now have three dedicated team supervisors to ensure flow occurs."*

**Aaron McConnochie, Production Manager**

## Conclusion

The journey of continuous improvement started with a first step, but it was only after a number of steps that progress could be measured. The Christchurch branch of Alsco NZ has experienced this journey. It took time for the work put in by all upfront to bear fruit.

First 'good (visual) communication' was put in place as catalyst for further improvement activities resulting in better product flow. It was only after nine months that all employees could look back and realise what they had achieved at the time.

However their efforts had to eventually benefit the customer while making their work easier and if possible less stressful. The final measure to gauge 'meaningful' improvement through the project was the *'number of delivery misses per week to the customer'*. In other words, how many deliveries to customers were being missed due to quality, flow, or other issues?

Figure 18 (below) illustrates this important KPI for the weeks before and after the introduction of CM to the Alsco business. Since embracing the Alsco values and taking ownership of the Alsco processes the delivery misses decreased on a weekly average from about 43 down to 13, or approximately by 69%.

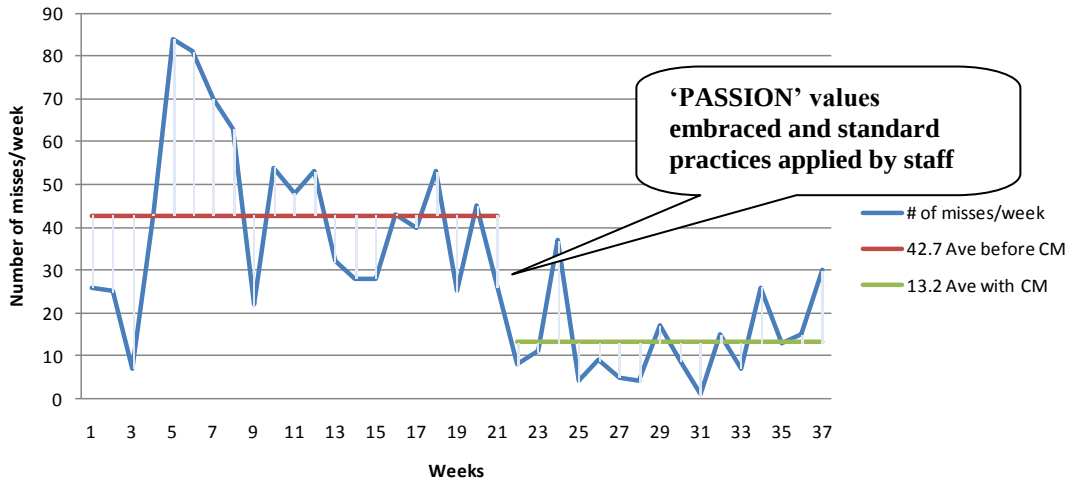


**Figure 18: Number of delivery misses/week to customers**

Applying simple but effective CM tools coupled with sound leadership and engagement by the people involved has undoubtedly given the Alsco NZ teams confidence to keep raising the bar.

All results were achieved despite the distractions of the Canterbury 2010 earthquake and subsequent aftershocks. The team was passionate and many were looking forward to achieving CM qualifications over the next few years.

*"Leave this issue with us"*, an employee responded to his manager as witnessed by the case study author. Only nine months earlier a more typical response to a manager raising an issue could have been, *"Well, good luck with that!"*. This short quote was testimony of the engagement achieved and how subtle but powerful change through CM qualifications could be.

## Copyright Notice



## Acknowledgements

The author wish to recognise the assistance of the following:
The Tertiary Education Commission of the Ministry of Education of New Zealand for funding of this work.
Alsco for their openness and willingness to have their story told as an exemplar site in New Zealand. Specific thanks to George Rowe, Aaron McConnochie and Mike Kent for their input into making this case study possible.
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