



LEAN LOGISTICS THINKING SOLVES WAREHOUSE DESPATCH PROBLEM

BACKGROUND

Supply Chain Services Australia (“SCSA”) was commissioned by the Building Products Division of Laminex Group to identify operational enhancements at its Bibra Lake distribution centre in WA.

SCSA conducted an operational review, with particular focus on order fulfilment. The review considered ways to optimise the warehouse layout, workflows and operational procedures.

The facility was originally established by Cullity Timbers (since acquired by Laminex) primarily as a retail outlet, and had not been updated to meet ongoing changes in the business and market dynamics. The facility had difficulties handling throughput volume and was cracking under the snowballing demand for storage space, especially in the despatch area. With such a fundamental shift in the requirements and customer expectations, some lateral thinking was required in the solution.

THE SOLUTION

SCSA applied Lean principles to the review in the spirit of “Genchi Genbutsu” (go and see for yourself). SCSA presented 20 recommendations for enhancement, classified as quick, medium or long term wins. Laminex decided that the first “Kaizen” (change for the better) event would be in the despatch area.

The despatch area located in the yard had outgrown its original boundaries. Among mixed deliveries in the despatch bays and ready-packed orders scattered around the yard, the only solution was to go up. Utilizing the vacant overhead space in the yard was made possible with a specialised outdoor cantilever racking, engineered to Bibra Lake terrain. A cantilever rack is a type of storage system consisting of vertical columns, base, arms, and bracing. The arm is supported only at one end without any external structure on the other end. It is a successful storage solution for long unit loads commonly found in timber or plumbing yards. After a detailed and rigorous tender process that reduced the Capex expenditure by 25%, a racking company was chosen and the solution was underway. As the Logistics subject-matter-expert, SCSA inspected and signed-off the installation on completion.

THE BENEFITS

The benefits from the new despatch area, in Lean 8S terminology, are shown below:

Sorting – Picking lists are issued to pickers with designated despatch bay. Packed orders are being stored by customer or by delivery route in each despatch bay.

Straightening – The despatch area is marked and noticeable to all operators. Deliveries are stored in one place according to the sorting principle clearly labelled and ready in an efficient work flow to be loaded to despatch vehicles. Loading time reduced and trucks are utilised better.

Shining – The new racking system possesses a tidy and organised working environment; managers have clear visibility of the physical layout and are maintaining cleanliness as part of the daily routine.

Standardizing – The racking is configured as a consistent system and all the bays in the despatch area are standardized both in capacity and sizes. Standard Material Handling Equipment is being used around the despatch area.

Sustaining – Sustainable operational guidelines implemented by the DC management team and some improvements to the process have being put forward to utilize the system further.

Safety – The new system, by the nature of the layout structure, promotes a safer environment in this heavy traffic area. Operators are more aware of their travel and interchange limitations around the racking system. Furthermore, a comprehensive safety program was launched by the DC management team and the area was line-marked according to Laminex’s control zone marking requirements.

Security – The new system is leveraging the security level in the despatch area. The deliveries stored in the racking system are visible to the Laminex operators and are not accessible to truck drivers.

Satisfaction – Satisfaction levels among the Laminex employees are high in relation to the change and the operational team is fully engaged with the new storage system. The DC staff have witnessed management efforts to improve the workplace and provide a better and safer working environment.

