

The Global Language of Business

Barcode Optimisation Boosts Efficiency in the Transport and Logistics Industry

Company Profile

Ron Crouch Transport has been a prominent name in the Australian transportation and logistics industries since 1978. Family-owned, they have built a strong reputation from their reliability, expertise, versatility, and high standards. Their commitment to excellence led to their working relationship with Rack & Shelf Labels, who began work on their Queensland and New South Wales sites in 2020. Following the success of this partnership, the help of Rack & Shelf Labels was again enlisted for their troublesome Victorian site in 2021.







Challenge

Ron Crouch Transport's Victorian site faced persistent scanning issues, causing daily bottlenecks in their warehouse operations. Poor print quality of barcodes was causing multiple scans or manual data entry, leading to significant inefficiencies, and increased operational costs. After their scanning hardware provider visited the site and highlighted the severity of its issues, Ron Crouch Transport recognised the need for a professional solution.



"Thank you to all at Rack & Shelf Labels, their knowledge & expertise in barcode-related standards helped us resolve what had become a significant issue at the site."



Peter Braneley, Chief Operating Officer Ron Crouch Transport

Solution

Rack & Shelf Labels (Australia) attended the Ron Crouch Transport Victorian site to collect a comprehensive suite of the site's barcodes for examination. These barcodes were then tested against two sets of barcode verification criteria.

The first test is a 10-step criterion for linear barcodes which assesses whether the barcode meets GS1 standard specifications on the 10 aspects of the test. Ron Crouch Transport's barcodes failed two areas of this test, **Quiet Zone** and **Substrate Colour**.

Quiet Zone refers to the blank margin on each side of a barcode, this tells the barcode scanner where the barcode's symbology starts and stops. The minimum size of a quiet zone should be 10 times the width of the narrowest bar (x dimension) and at least 3.175mm. Ron Crouch Transport's insufficient quiet zones meant their scanning hardware was picking up unrelated information and was unable to accurately perform Automatic Identification and Data Capture (AIDC).

Results and Benefits

Rack & Shelf Labels (Australia) identified two issues that led to all six failures across both tests. These issues were a lack of knowledge and understanding regarding GS1 standards and using cheap barcode labels and printers to cut costs. Understanding GS1 standards would've enabled Ron Crouch Transport to identify scanning issues before they negatively influenced operational efficiency. The costcutting methods also backfired on Ron Crouch Transport, again affecting efficiency, and requiring a \$35,000 investment to relabel the entire site.

Collaborating with Rack & Shelf Labels (Australia) led to the identification and correction of the barcode issues. By adhering to GS1 standards and improving barcode quality, Ron Crouch Transport's Victorian site significantly improved its day-to-day efficiency with accurate AIDC. The investment, although initially substantial, highlighted the importance of compliance with GS1 standards and the long-term cost savings that this entails.





Scratching Issues

Substrate Colour refers to the colour of the material/ surface that the barcode is printed/affixed onto. Barcodes require high contrast between the bars and background to ensure accurate scanning. Ron Crouch Transport was printing black bars on blue backgrounds, which did not supply sufficient contrast between the two. This led to misreads, increased scanning time and data integrity issues, causing an overall reduction in operational efficiency.

The second test is the SSSS (4S) Testing Criteria. This test focuses mainly on the label and assesses it for scanning, scratching, stretching and sticking, four common factors that affect barcode and label integrity. Ron Crouch Transport's labels failed all four aspects of this test. (The image shows damage caused by pallet shrink wrap impact)

Scratching Issues were a major concern identified from the 4S test as the printed label was able to be removed by light scratching from a fingernail. This implied that the labels were susceptible to minor abrasions and shrink-wrap impact, the results of which could be seen across the site. In addition to the scanning issues previously identified, easily stretched labels and the improper sticking of labels caused serious concerns over the integrity, accuracy, fidelity and durability of the site's barcode labels.

About Rack & Shelf Labels

Established in 2006, The Rack & Shelf Labels Group specialises in professional labelling services for the warehouse and logistics industries. They offer a comprehensive suite of services, including design, high-quality label manufacturing, and professional installation, backed by continuous investment in technology to maintain their position as global leaders.



Rack & Shelf Labels

https://www.gs1au.org/partners/solution-providers/business-alliance-partner/rack-and-shelf-labels-australia

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