

Transforming operations at Moonpig through automation

Overview

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Moonpig has established itself as a leader in personalised gifting, combining emotional connection with operational scale.

From its **120,000 sq ft Tamworth facility**, the business has historically fulfilled thousands of daily orders across a diverse product range, including cards, flowers, chocolates, mugs, and soft toys.

This breadth of offering, coupled with high seasonal peaks, placed significant demands on its fulfilment operation. While the original model, built around more than **60 manual packing benches**, enabled flexibility and rapid early growth, it increasingly became a constraint as volumes and customer expectations continued to rise.





The Challenge & Brief

The manual nature of the operation introduced a number of inefficiencies. Ensuring accurate picking across many products was challenging, and maintaining the correct dispatch order, essential for customer satisfaction, became difficult under pressure. The physical movement of orders from packing areas to despatch created additional labour overhead and congestion, impacting overall throughput. The system has been designed to reach an output of **6,000** orders per hour and ambitions to grow further, Moonpig required a solution that could not only resolve these issues but also provide a scalable foundation for future expansion within the spatial constraints of the Tamworth site.

To meet these objectives, Moonpig partnered with CSL Automation, selecting them for their proven track record in delivering complex, high-volume fulfilment solutions. CSL worked closely with Moonpig to understand the nuances of their operation and developed a tailored automation strategy.

This included considering alternative layouts, such as splitting operations across ground floor and mezzanine levels, to maximise the use of available space while maintaining operational flow.

The implemented solution represents a step change in capability, transforming a predominantly manual process into an integrated, automated system designed for speed, accuracy, and flexibility.



Key automation elements and equipment include:



Conveyor Infrastructure

- ▶ Approximately 300 metres of Interroll High Performance belt conveyors, forming the backbone of the belt conveyor material handling system
- ▶ Integrated belt conveyors to support smooth product flow between packing, scanning, and sorting zones
- ▶ Designed to optimise space utilisation and maintain consistent throughput across the operation

Induct & Packing Lines

- ▶ Three dedicated induct pack lines, each supporting 20 packing benches (60 total)
- ▶ Structured workflow to streamline the transition from packing to automated handling
- ▶ Ergonomically designed to improve operator efficiency while reducing unnecessary movement

Barcode Scanning & Data Capture

- ▶ High-performance SICK barcode scanners positioned throughout the system
- ▶ Overhead scanning capability focused on top-facing labels for accurate data capture
- ▶ Real-time communication with the Warehouse Control System (WCS) to enable intelligent routing decisions



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Sortation System

- ▶ 22m Intralox sorter acting as the central distribution hub within the operation
- ▶ Six bi-directional chutes enabling flexible routing based on multiple criteria
- ▶ Dedicated “jackpot” lane for exception handling and problem resolution
- ▶ Sortation logic based on carrier, shipment service, despatch date, and product grouping

Bespoke Chute & Outfeed Design

- ▶ Bespoke sorter slide chutes with integrated braked rollers
- ▶ Controlled parcel deceleration to prevent damage and ensure safe handling
- ▶ Efficient accumulation and presentation of parcels for final despatch

System Integration & Control

- ▶ Seamless integration with Moonpig’s WCS for dynamic decision-making
- ▶ Configurable routing rules to support operational changes and future growth
- ▶ Scalable architecture designed to accommodate increased volumes and evolving business needs

The result is a highly efficient, future-proofed fulfilment operation that significantly reduces manual handling, improves order accuracy, and ensures timely, sequenced despatch. By automating key processes and intelligently orchestrating the flow of goods, CSL Automation has enabled Moonpig to not only meet current demand with greater reliability but also confidently scale for the future.



ConveyorCare & Maintenance



A critical element of the partnership between Moonpig and CSL Automation extends beyond system design and installation into the ongoing support and optimisation of the operation. Through CSL's ConveyorCare programme, Moonpig benefits from a comprehensive maintenance strategy designed to protect system performance, minimise downtime, and extend the lifecycle of key assets. In a high-volume, time-sensitive environment such as Moonpig's fulfilment operation, ensuring consistent system availability is just as important as the initial automation itself.

ConveyorCare provides a proactive, predictive approach to maintenance, combining both electrical and mechanical servicing to identify and address potential issues before they impact operations. Rather than relying solely on reactive responses, CSL works closely with Moonpig to monitor system performance, schedule preventative interventions, and maintain optimal operating conditions across all conveyor and sortation equipment. This approach not only reduces the risk of unexpected failures but also supports sustained throughput during peak trading periods.

In addition to planned maintenance, CSL delivers rapid-response support for breakdowns and repairs, ensuring that any issues are resolved quickly and with minimal disruption.

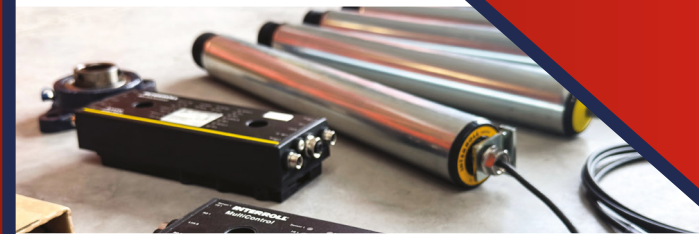
The service also includes expert guidance on spare parts management, advising on critical spare part holdings, sourcing components efficiently, and carrying out replacements as required. This end-to-end support model provides Moonpig with confidence that their automated systems will continue to operate reliably, allowing them to focus on delivering a seamless customer experience while maintaining the flexibility to scale in line with demand.

Want to know more? Call us on: **+44 (0)1283 55 22 55**
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