

Canada Post streamlines parcel processing

Canada Post chose Datalogic to formulate an automated solution to meet their data collection and sortation requirements based on the DS8100 and DX8200 fixed position scanners.

Canada Post is a leading provider of delivery solutions in the Canadian marketplace.

Consisting of a vast network of people, processes, systems, infrastructures and partnerships, Canada Post brings together Canadian consumers and businesses through a seamless exchange of goods and ideas. It has over 66,000 employees, a vast retail network of over 7,000 post offices, nearly one million points of access and over 6,000 vehicles. Its systems and processes control the delivery of more than 37 million pieces of mail each day to a delivery network capable of reaching over 13 million points of delivery.

The company's focus on the parcel business is becoming even greater as the marketplace evolves. As part of a broad-based parcel processing plan to re-position Canada Post in the Canadian parcel marketplace, the Gateway Bulk Mail Facility in Mississauga, Ontario, has re-examined key assumptions in parcel processing, leading to the installation of a new large parcel sorter and adopting barcode technology. Concurrently, Canada Post has been undergoing a significant business transformation, moving to a process-based management model, and incorporating 'Lean Manufacturing' tools.

Bold changes include new infrastructure

Leading edge innovative processes were required at Gateway to meet the challenges of the future. To be successful, these processes had to reduce cycle time, consolidate work centres, and reduce inventories. The process had to take up less space, lead to improved quality, and reduce processing and transportation costs. This meant changes that would incorporate the introduction of bar coding technology, increase loose-loading of incoming and outgoing parcels, improve streaming of product, and reduce dependence on forklifts and other mechanised mail handling equipment. In fact, the new parcel processing plan required thinking outside the limitations of this infrastructure.

A limited pilot was set-up, demonstrating the feasibility of loose-loading parcels to selected destinations. The success of this test prompted a larger scale 'proof of concept' pilot. A used sorter was purchased and adapted to deliver loose-loaded parcels from induction on the receiving docks directly to runout destinations on the dispatch docks, located at the opposite side of the facility. This interim system was used primarily for sorting large or heavy parcels. The test systems set the stage for the development and installation of a new cross-belt sorter at Gateway – known as the large parcel sorter – and capable of sorting both averagesized and oversized parcels.

Barcoding Technology

The requirement was for a system that could scan scanning standard bar codes printed on paper labels on any one of five sides of a parcel for tracking and destination purposes. Datalogic has supplied and installed two types of Omni-directional laser scanners – models DS8100 and DX8200. All scanners are fixed on industrial grade extruded aluminium frames, mounted over the induction conveyors to initially scan for bar codes on two sides of the parcels. Scanners mounted directly over the sorter cells moving at very high speeds below handle the remaining three sides. Datalogic has provided an advantageous modular approach to bar code scanning, as well as a patented non-mechanical auto focus function designed to maximise uptime and reduce or eliminate downtime due to mechanical failures. The modular concept also allows maximum reading area coverage on all five sides of the parcels.

Benefits

The large parcel sorter is capable of sorting parcels with barcodes applied by the customer, at a different postal facility or at the induction stations at Gateway.

Parcels are directed from induction directly to dispatch. Sorted parcels do not have to be pulled by tractor from runouts to the dispatch docks.

The increase in loose-loaded product at both front and back ends of the process has resulted in reduced forklift usage.

Now that the new process has been stabilised, some of the old infrastructure, including the expansive parcel runouts, are being dismantled, freeing up space for other activities within the facility.

The new system provides better capability for streaming product, and keeping small packets out of the parcel stream for delivery by Canada Post's broad letter carrier network.

Reduction in cycle time.

Greater potential for 'cubing' parcels.

The management team at Gateway has considered employee feedback through each step of the implementation. A communications area has been set up on the plant floor and Parcel Operations Director Rocky Gualtieri has been issuing weekly messages, advising employees on progress and introducing new initiatives.

Mr.Gualtieri comments, "We have both the technology and the people in place to support growth. This partnership makes us a major player in the parcel business."

DS8100

The DS8100 is a high performance laser scanner designed with built-in decoder, designed to provide optimum performance for the most demanding shop-floor and sorting applications. The DS8100 can read omni-directional medium/high density codes on very fast conveyors with a large reading area and a minimum gap of 50 mm between parcels.

DX8200

The DX8200 omni-directional laser scanner provides a real plug and play approach to omni-directional reading for unbeatable price/performance ratio. The same technologies of the DS8100 are used in the DX8200, making it a powerful solution for omni-directional bar code reading, with minimum support for installation and setting.

