New DC boosts productivity and throughput for Hallmark

The greeting card market in Australia is conservatively estimated to be around 200 million cards each year, with sales to the target market averaging about 22-23 cards per person, making Australia one of the largest users of greeting cards in the world. Consumers in the USA average around 24 cards a year, however, the clear world leader for greeting card consumption is the UK, where the average is an astonishing 44 cards per person!

One of the biggest names in greeting cards is Hallmark, which supplies around one-third of the 200 million greeting cards in Australia through its new national distribution centre in Melbourne. Hallmark commenced operations at its new 14,000 sq m DC at Scoresby in November 1998 and, since that time, has achieved a 30% increase in productivity and throughput, with the same permanent staffing levels and a greatly reduced reliance on casual labour.

Background

Hallmark has been making and distributing greeting cards in Australia since the 1960s, with the company taking over local supplier Specialty Press, in 1983. As part of the deal, Hallmark acquired Specialty Press' facility at Clayton in Melbourne, and the company continued to operate out of these premises for the next 17 years or so, until the decision was taken to relocate to a new facility in the Caribbean Gardens Business Park at Scoresby in Melbourne.

The new distribution centre was designed by Hallmark, in conjunction with Siemens Dematic, and gives Hallmark the capability to service its constantly increasing sales volume. Hallmark, which has a customer base numbering around 2500 in Australia, has always been very strong through major retail chains, and views the country's extensive network of newsagents, as a source of further growth potential.

Local Manufacture

Of the 65 million or so cards Hallmark sells each year, about one-third are classified as Seasonal, with the remainder termed Everyday. Christmas, Valentine's Day, Easter, and Mother's and Father's Days, being the big sellers in Seasonal, with Birthday, Get Well, Congratulations and so on accounting for the bulk in the Everyday range.

Hallmark manufactures the majority of greeting cards locally, outsourcing printing and certain types of value-added functions such as embossing and foil stamping, but generally finishes the cards (folding and packing with envelopes) in-house. This enables the cards to be transported through the various production stages as flat sheets, significantly simplifying handling and transport.

While some of the designs for cards are electronically transferred from Hallmark in the USA, local design and manufacture enables Hallmark Australia to localise the message on the cards. For instance, in the USA, Mom and Pop are commonly used on cards, whereas in Australia, Mum and Dad is more appropriate.
Once the cards have been finished and folded in-house, they are generally packed with envelopes in units of five in a clear acetate pack ready for distribution.

**Distribution**

Hallmark distributes around 4500 skus in the Everyday range, and between 2500-3000 Seasonal skus. Wherever possible, Hallmark operates vendor-managed inventory. The company receives orders daily from its network of 400 sales and merchandising representatives who regularly visit the various retail outlets around the country. Distribution receives a rough guide as to its next day's workload at 8pm in the evening, with the final tally of the day's requirements generated from 6am in the morning. Manufacturing, distribution and inventory is managed by JD Edwards integrated software package, running on an IBM AS400 platform.

Transport and delivery is handled by Discount Freight Express.

All Everyday cards are picked and despatched as packs of five, with a re-order ticket for the relevant card inserted into the pack when the unit is picked. With Seasonal requirements typically concentrated within a very tight timeframe, this requires a different approach to order fulfilment than the slower moving Everyday line items. Consequently, the company operates two distinct Pick Modules for Seasonal and Everyday greeting cards.

**Seasonal Pick Module**
The Seasonal Pick Module (shown right) provides 1200 online pick slots with pick-to-light technology. This enables the fastest moving products to be picked quickly and efficiently. Orders for this area are downloaded from the JD Edwards package to the RapidPICK controller, which then illuminates the locations requiring picks and displays the quantities for each pick on central zone displays. Orders are picked directly into shippers and travel through the Pick Module on gravity conveyor. As soon as a shipper is filled, or an order completed, it is pushed onto a central powered take-away conveyor which delivers the carton to a packing station, where the carton is sealed, and ready for despatch.

The number of pick slots within the Seasonal Pick Module is sufficient for Hallmark to run two different seasonal product lines, such as Father's Day which is still active when the company has to start supplying Christmas stock.

**Everyday Pick Module**

Hallmark initially included some of the fastest-moving Everyday products within the Seasonal Pick Module, but found the comparatively low hit density and the need to manually insert re-order tickets into every pack, caused bottlenecks and compromised the efficiency of the total system. The solution was to set up a totally separate Pick Module for the bulk of the Everyday skus, with orders passing through the module on gravity conveyors from zone to zone. As soon as a shipper is filled, or an order completed, it is pushed onto a central powered take-away conveyor, which delivers the carton to a packing station where it is sealed and transported to despatch.

Because transport contractor Discount Freight Express operates an automatic carton sortation system, Hallmark does not need to consolidate orders in any way. Cartons are simply palletised for pick-up each afternoon by Discount Freight Express, which then utilises the barcoded information on the shipper label to sort the cartons by destination.

**Reserve Storage**

A narrow-aisle, high-rise storage system (shown left) provides storage capacity for 8,000 pallets. Turret Trucks are used for pallet handling, and Orderpickers for case picking. The entire storage system is fitted with in-rack sprinklers for fire safety, and operation of the materials handling equipment within the aisles is controlled by wire guidance.

**Productivity and Throughput**

Since the Everyday Pick Module (shown right) has been established, Hallmark has enjoyed a 30% improvement in productivity and throughput, without the need to increase permanent staffing levels. The company has also been able to greatly reduce the number of hours worked by casual labour.

Throughput has increased from 34000 units a day to around 45000 units a day. The new order fulfilment system has given Hallmark a substantial increase in productivity and throughput and, most importantly, gives the company the ability to service its constantly increasing sales volume economically and efficiently.