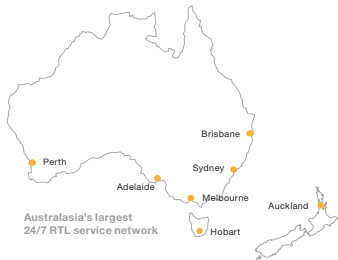


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Creating Logistics Results

DEMATIC



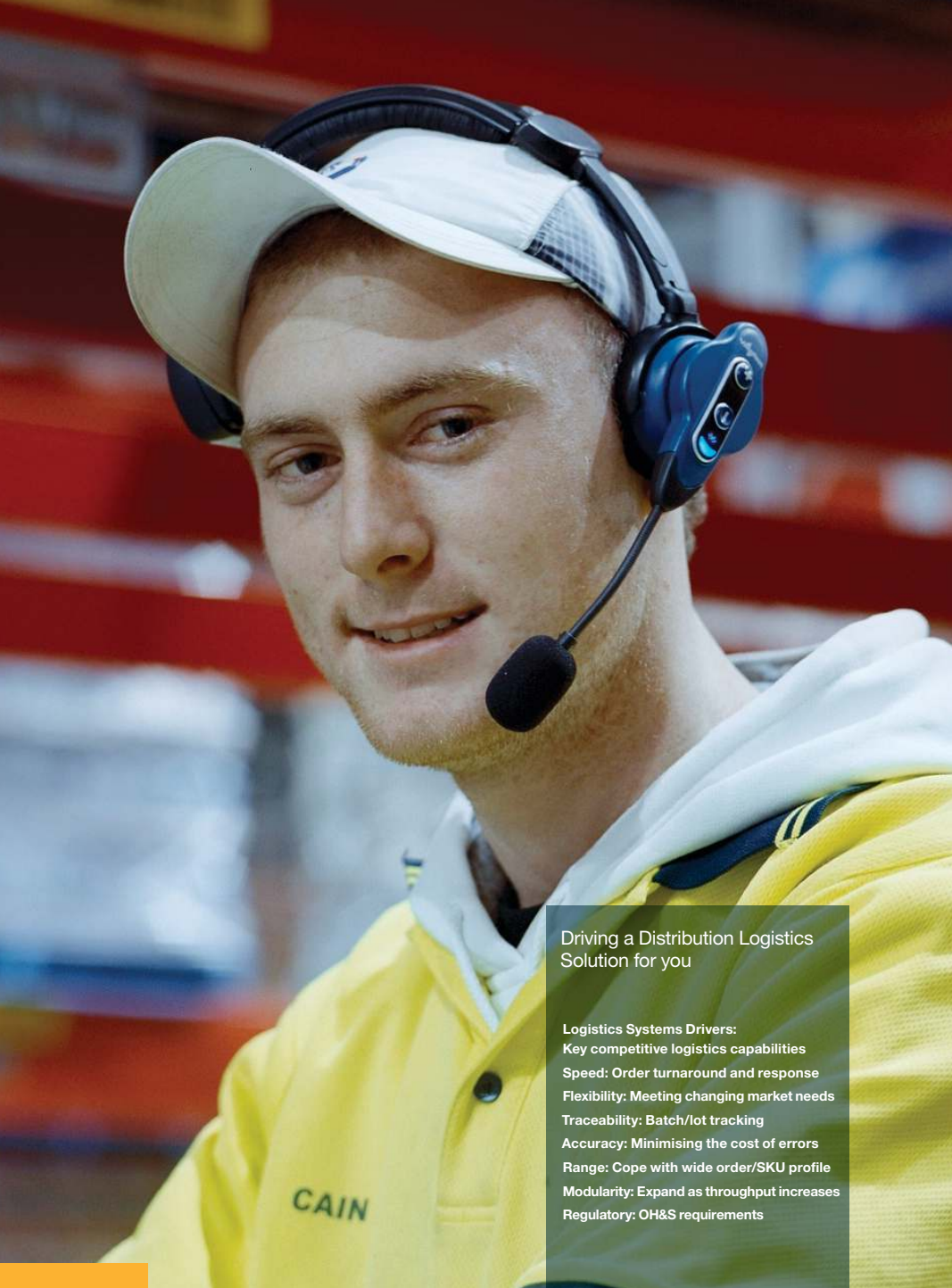
Under pressure from the rising cost of retail shelf space and market demand for shorter lead times, your customers require you to deliver the right product to the right place, in full, on time, more frequently, store friendly and at a competitive price.

Add regulatory and safety issues and it is clear that Retail and Wholesale distribution is the most complex and challenging of all.

Dematic delivers tailored solutions that address these issues and the unique requirements of each customer, creating logistics results that give you a competitive edge.

Smarter, faster, safer

**SMARTER,
FASTER,
SAFER**



Driving a Distribution Logistics Solution for you

Logistics Systems Drivers:

Key competitive logistics capabilities

Speed: Order turnaround and response

Flexibility: Meeting changing market needs

Traceability: Batch/lot tracking

Accuracy: Minimising the cost of errors

Range: Cope with wide order/SKU profile

Modularity: Expand as throughput increases

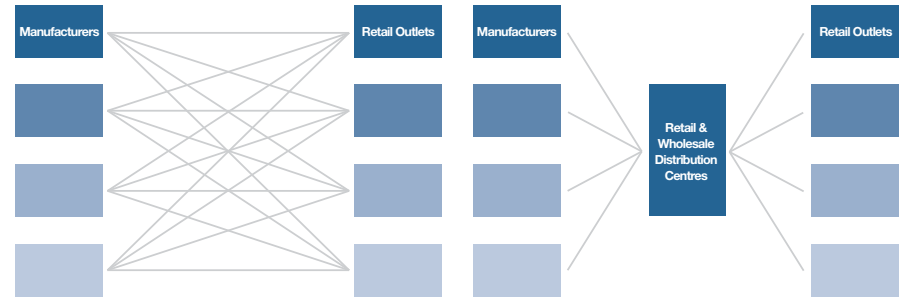
Regulatory: OH&S requirements

The Retail & Wholesale Logistics Challenge

Achieving competitive advantage through smart distribution

These days simply lowering costs or providing faster, more reliable delivery is not enough. The key to sustainable logistics results is an adaptable strategic framework that aligns all aspects of business strategy, addresses current business drivers, creates loyalty and generates profits.

Why smarter, faster, safer distribution is important for Retail and Wholesale success



Retailing and wholesaling is not another layer of cost. Adding a retailer or wholesaler between manufacturers and customers dramatically reduces the number of transactions and distribution costs in the supply chain.

A distribution logistics solution for you

In choosing the right solution, you need look no further than your own Strategic Business Plan. It is here that the clues will be found. At Dematic we work to understand your business model, determine the best fit for you, and design a solution that creates strategically-aligned logistics results.

An ever-expanding range of technologies and applications can be integrated to create solutions geared to produce different results. These include proprietary technologies and software designed and manufactured by Dematic and 'best of breed' components that enhance system performance.

The Retail & Wholesale Logistics Challenge

In simple terms, you receive bulk stock from suppliers and orders from customers. Your role is to fulfil the orders and deliver them. Sounds easy. But understanding how to do so as efficiently and cost-effectively as possible is core to the success of your business.

And it is a never-ending challenge, because technology and service expectations are constantly changing.

With large SKU ranges, frequent small orders, short delivery lead times, mixed split and full case picking requirements and often high levels of regulation, Retailers and Wholesalers face the most complex logistics challenge of all.

As a member of these demanding industries, your very existence depends on your ability to add supply chain value by lowering costs, speeding delivery, offering higher service levels, with greater accuracy, and providing customers and suppliers with greater control and visibility.

Meeting the challenge

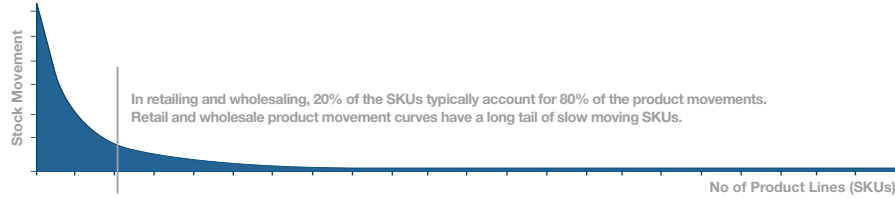
Through extensive global applications knowledge, industry-leading technologies and unmatched systems integration experience, we can help make your distribution operation smarter, faster, safer, and deliver you a competitive edge in your market.

The Order Fulfilment Challenge

The importance of efficient order fulfilment

Order fulfilment accounts for 90% of the cost of a distribution centre. It is often a labour intensive task that requires a combination of good system design, excellent process management and the correct interface between your staff, the technology and the IT they use.

Finding efficient ways to overcome the 80:20 dilemma



What is Order Fulfilment?

Order fulfilment is taking and selecting from bulk, the items that your customer wants. Usually a combination of fast and slow movers. It may involve supplying pallets of goods (full pallet) taking cartons from a pallet (full case) or items from a carton (split case).

Your inventory and order profiles determine the design of your distribution centre.

It is here that you need best practice solutions that deliver results. Exceptionally large SKU ranges, with many slow to very slow moving lines require a broad range of integrated solutions to optimise your supply chain performance.

At the heart of the task is order fulfilment, the most complex and costly distribution task. The key to successful order fulfilment is the efficient flow and management of materials and orders through the system. Order fulfilment is labour intensive, accounting for up to 90% of costs in a distribution centre environment.

Picking Productivity

Analysis of many order fulfilment operations highlights a multitude of non-value adding tasks.

You pay pickers to pick, but often, to do their job, they must do many non-productive tasks as well.

They need to collect their picking instructions and the equipment they need, find the stock location, inspect the stock to ensure it is correct, pick the items required, check and mark the order. But mostly they travel from location to location.

The best way to improve order fulfilment productivity is to tackle the non-productive tasks and the biggest opportunity is travel.

Knowing that there are non-value adding tasks is one thing. Knowing what to do about them is another.

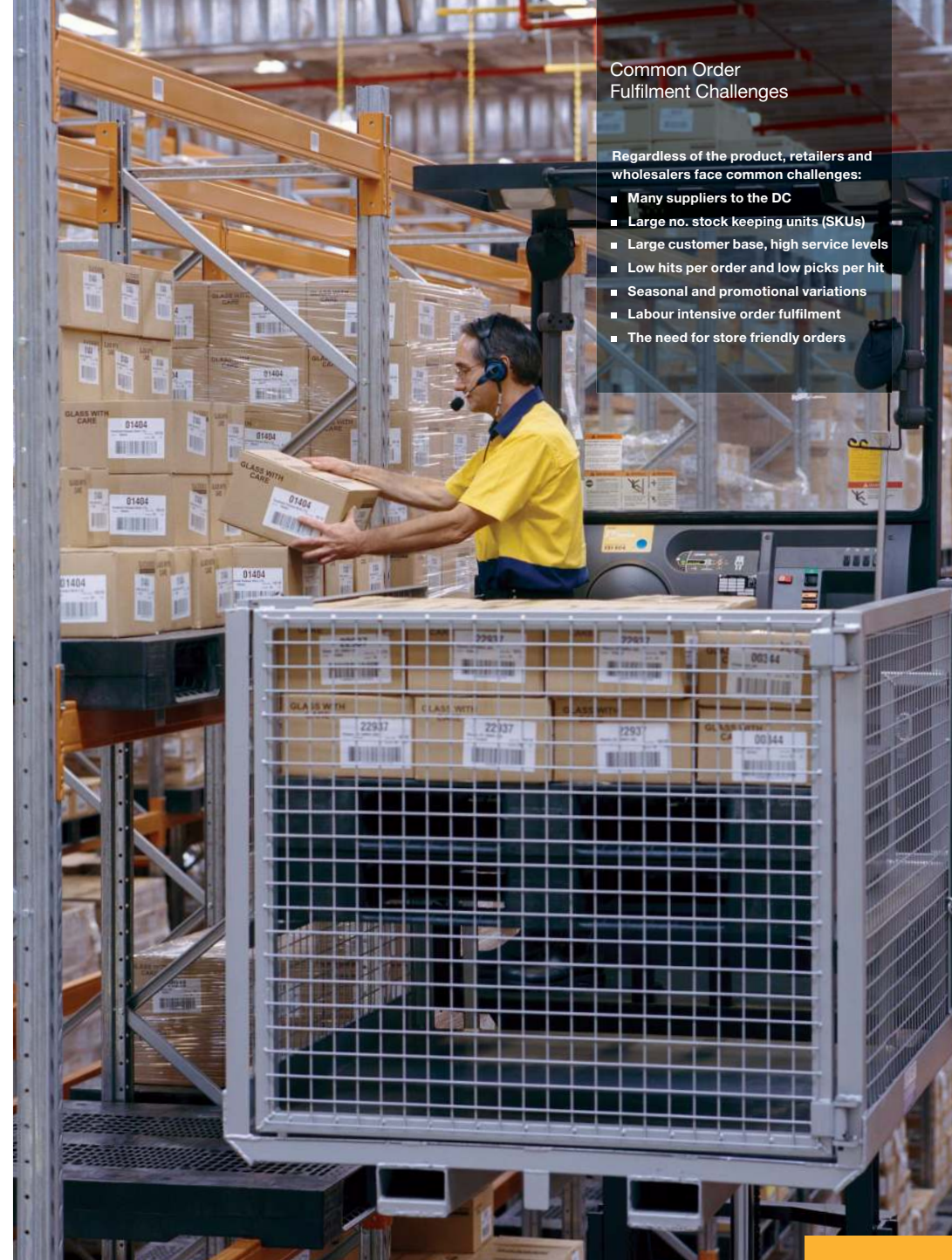
There are many solutions on the market. Each has merit, but how do you decide which solution is best for your business?



Common Order Fulfilment Challenges

Regardless of the product, retailers and wholesalers face common challenges:

- Many suppliers to the DC
- Large no. stock keeping units (SKUs)
- Large customer base, high service levels
- Low hits per order and low picks per hit
- Seasonal and promotional variations
- Labour intensive order fulfilment
- The need for store friendly orders



Order Fulfilment Strategies to optimise service, minimise costs

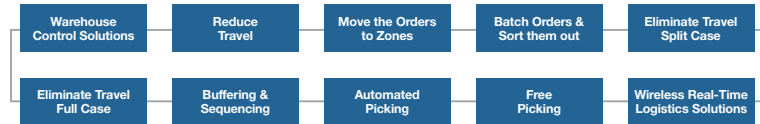
- Smart software & controls for integrated order management and material flow
- Reducing travel by helping your pickers travel faster
- Condensing the pick face to travel less distance
- Bringing the goods-to-person
- Picking more than one order at a time
- Real-time order picking
- Using automation to boost picking productivity
- Managing the flow of materials through your distribution facility

Pick our brains for bright ideas

Choosing the right solution for your distribution centre

Through a global network of more than 3000 logistics professionals, and an installed base of more than 4500 systems worldwide, Dematic has the knowledge and experience to deliver you an intelligent solution that precisely matches your needs.

The strategies we use to help design the best logistics solution for your business



Designing an order fulfilment system is a demanding and highly complex task. Sophisticated analysis of order profiles, product movement, peak periods, product size, cube and handling characteristics are necessary to determine a solution.

Central to the analysis is product movement across the complete SKU range, which our designers use to implement a mix of different solutions designed to optimise performance and incorporate picking flexibility.

At Dematic, we have developed a new method for grouping the technologies and techniques that, when integrated effectively, lead to lower costs, greater productivity and significantly greater levels of service, accuracy and control.

The primary applications provide a framework that enable better understanding of picking principles. It is with this knowledge that our design specialists create solutions that really fit your specific business needs.

Each application tackles productivity and performance issues by reducing or eliminating non-value adding activities.

Dematic has a reputation as a global leader that provides highly reliable solutions. We have also developed and introduced highly innovative technology and techniques that help our customers meet their logistics objectives.

And while there is often risk in innovation, Dematic's commitment to never walk away, together with our proven track record, clearly demonstrate that our innovative solutions, products, technologies, software and processes can be successfully integrated, minimising risk and maximising competitive advantage.

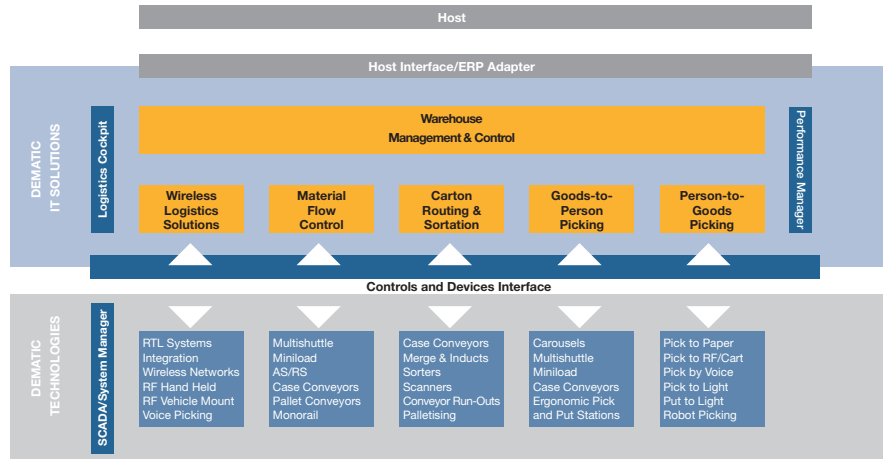


Warehouse Control Solutions

Real-time, integrated order management, material flow & machine control software

At the heart of any order fulfilment system is the software that manages orders and material flow. Seamless integration of technologies and software provides a single user interface for effective logistics management and control.

Integrated IT for efficient material flow and order fulfilment



Order management, material flow and controls software are key to the success of any logistics solution. It provides a single user interface for all order fulfilment activities with the customer's host computer, typically an ERP (enterprise resource planning) system or, in some cases, a WMS (warehouse management system). It also provides the tools to manage the flow of materials and orders, constantly reporting order status back to the host. This enables host inventory data to be updated in real-time and facilitates other processes including automated invoicing and shipping documentation.

Improving Control & Visibility

Order management, material flow and controls software provides real-time control and visibility of your order fulfilment systems and personnel. It seamlessly integrates technologies including Voice Picking, Pick-to-Light, Put-to-Light and RF Picking, and interfaces automated systems including AS/RS, Carousels and A-Frames into a single order fulfilment system.

It allows different order picking technologies to be applied across different areas of the product movement curve, and integrates different order fulfilment methodologies such as zone routing, batch picking, buffering and sequencing, and order assembly.

Real Time Management

Because the software integrates and 'real-time enables' operations, it is possible to manage the workflow and balance the workload across the available order picking resources to maximise efficiency and productivity.

SAP Connectivity

Tailored Sub-drivers that interface to SAP EWS are now available from Dematic. The Sub-driver provides machine control in a Multishuttle® application and feeds real-time, end-to-end transaction data to the SAP database.

Real-Time Decision Support & Reporting

Warehouse control software 'real-time enables' operations and provides immediate access to valuable data to assist order management and decision support:

- Order detail with zone by zone status
- Container contents & location tracking
- Picker and zone productivity reports
- Workload reports to aid allocation of resources, and zone map selection to aid workload balancing
- Reports of short orders





Smart ways to eliminate and reduce wasteful activities

- Reduce travel time
- Simplify stock replenishment
- Enhance picking ergonomics
- Eliminate non-value adding functions
- Increase productivity by working smarter

Enhancing the Efficiency of Manual Picking

Eliminating non-value adding activities

Analysis of order fulfilment operations shows that pickers actually spend more time doing something else other than picking with many activities being non-value adding such as collecting instructions and equipment, locating and recognising stock, replenishing, packing, checking and paperwork. But the biggest non-value adding task is travelling from stock location to stock location.

Depending on the size of the operation, a large part of an order picker's time is spent travelling between picks.

If the physical distance that has to be covered to assemble orders is large, consideration should be given to what can be done to speed the journey.

Help the Picker Travel Faster

Options to be considered include pallet trucks, forklifts, low and high level order pickers, and man-aboard stacker cranes. When used in conjunction with properly designed storage systems, these devices can help to boost productivity as well as speed order turnaround.

Condense the Pick Face

To pick one SKU, you only need access to the one item or carton of items, so why allocate any more space than is necessary?

Live storage is the answer.

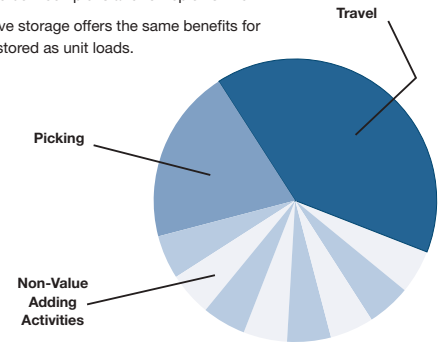
Unlike static storage, live storage is a dynamic storage medium in which products or cartons are presented to the order picker on an inclined roller track, with back-up stock stored behind the picking stock.

As an item is removed, its replacement gently rolls into place, ensuring product is always on hand.

Live storage systems automatically rotate stock, which can be very important for goods with a limited shelf life.

Because each SKU requires little more than the width and height of the product or carton it is contained in, and there are no cross aisles, live storage systems are very space efficient. This type of arrangement typically reduces the length of the pick face by up to 80%, reducing the distance between picks and for replenishment.

Pallet live storage offers the same benefits for goods stored as unit loads.



A large part of a picker's time is spent on non-value adding activities, such as collecting equipment and instructions, locating and recognising stock, replenishing, packing, checking and paperwork.

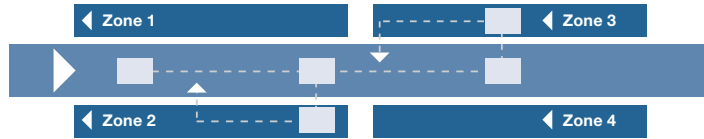


Zone Routing Solutions

Managing the flow of materials for faster, more efficient order assembly and consolidation

Zone routing conveyor picking systems enhance material flow and speed delivery by routing orders only to the zones where picking activity is required.

Save time, increase capacity by only sending orders where they need to go



Zone skipping conveyors only deliver orders to areas where goods are required, improving the materials flow.

Conveyors: an essential component of material flow systems

Conveyors join processes together, deliver and take away goods automatically and on cue.

They can store goods until the next person or machine wants them, merge and sort them intelligently, and facilitate a number of value-adding functions like packing, palletising and automatic truck loading. Zero-pressure accumulation conveyors prevent line pressure from crushing cartons, or causing them to jack-knife, and sequence goods prior to devices like elevators, diverts, storage and sortation systems.

Material flow software controls the routing system, coordinating zone skipping to improve pick efficiency by only delivering orders to areas where goods are required and providing sortation for full cases and split case containers. Functionality includes: Check-Weighing, Divert-to-QA, Divert-to-Invoicing Lane, and Automatic Despatch Labelling.

Zone routing is an efficient material flow solution using conveyors to transport order totes or cartons through a series of zones where split-case items are picked.

Central Induction

A form of zone routing, Central Induction, is a 'push' system where the induction rate is controlled to match the pick rate. It has the advantage of using the conveyor system to deliver empty cartons to the picking zones whilst allowing the components of urgent multi-container orders to be picked in parallel.

Global Induction

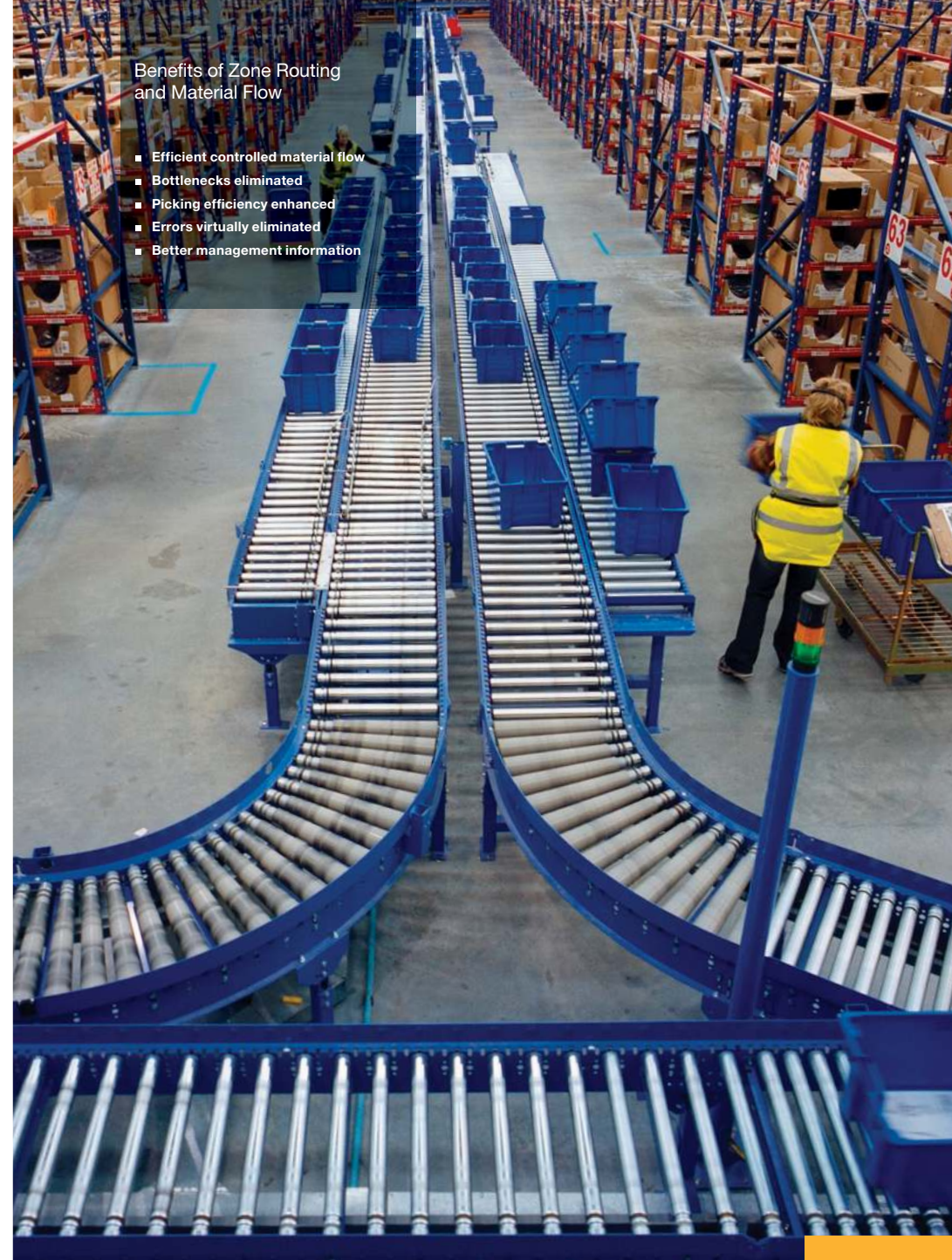
In another zone routing technique, Global Induction, orders start in the zone of their first pick and picking continues until the container is full, maximising container utilisation.

Global Induction is a "pull" system, where the induction rate is self-regulating.



Benefits of Zone Routing and Material Flow

- Efficient controlled material flow
- Bottlenecks eliminated
- Picking efficiency enhanced
- Errors virtually eliminated
- Better management information



Batch & Cluster Picking Benefits

- Simple picking techniques
- Labels, lights or voice
- Increases productivity
- Automatic stock tracking
- Increased accuracy



Batch & Cluster Picking Solutions

Saving time and increasing productivity by picking many orders at once

Batch pick and sort solutions provide effective productivity and throughput rates for full case picking in a manual environment. Cluster Picking using RF or Voice does likewise for split-case orders.

Where multiple orders require common items, the travel time associated with picking those goods can be greatly reduced by grouping the orders in such a way that all of the items for multiple orders are picked at the same time and are then broken down into their individual orders. This methodology is called "Batch Picking" for full cases and "Cluster Picking" for split-case goods.

Batch Picking and Sorting

By grouping and concurrently picking the stock for say ten orders, pickers become more productive. This happens because they are able to spend longer at each location rather than revisiting the same location time and again. Once batched, goods need to be sorted out again which can be done automatically by the Dematic range of high-speed sorters.

Cluster Picking

Cluster Picking allows multiple split-case orders to be picked in one pass and typically takes the form of an RF-directed trolley with Pick-to-Light displays to direct the quantity for each container.

With the trend towards more, smaller orders, one form of Cluster Picking is becoming increasingly important: Multiple Orders Per Tote (MOPT). MOPT allows multiple small orders to be picked into separate compartments and is an excellent way to deal with single line split-case orders.

Picking in batches and sorting to discrete orders



Individual orders showing quantity of full cases of same SKU required for each

36

Batch orders and pick common line items (total 36 picks)



Transport batched SKUs, accumulate and merge for automated sortation

Sort



Automatically sort batched pick of 36 SKUs to individual order quantities

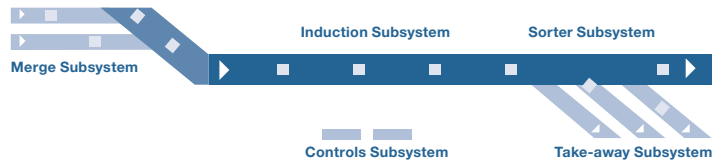


Sortation Solutions

Sorting batched goods into discrete order quantities with full conveyor system accountability

Sortation systems increase productivity by allowing multiple orders to be grouped and picked at the same time. They also facilitate cross docking and increase supply chain velocity by eliminating unnecessary handling and storage of product and the direct costs associated with handling excess inventory.

A typical sortation system structure



Components of a Sortation System

There are five key sub-systems in sortation:

- Merges facilitate consistent product flow by staging, and feed product continuously
- Induction sub-systems minimise gaps between product and maximise product flow onto sorter
- The sorter, which is capable of operating at low or high speeds as throughput requirements increase
- Take-away conveyors efficiently move goods away from the sorter to assembly areas prior to despatch
- Controls track products and ensure smooth delivery and sorting of products.

Sorters fall into two broad categories – straight line or continuous loop.

Straight Line Sorters

Straight Line Sorters are most cost-effective where the number of sortation points required is relatively small – up to 40-50 delivery points, and for throughput rates up to 12,000 items/hour*.

Continuous Loop Sorters

Continuous Loop Sorters provide a much greater degree of functionality and flexibility than straight line sorters, and may be designed to handle much higher throughput rates of greater than 25,000 items/hour, as well as sort to several hundred delivery points.

Other Sorting Functions

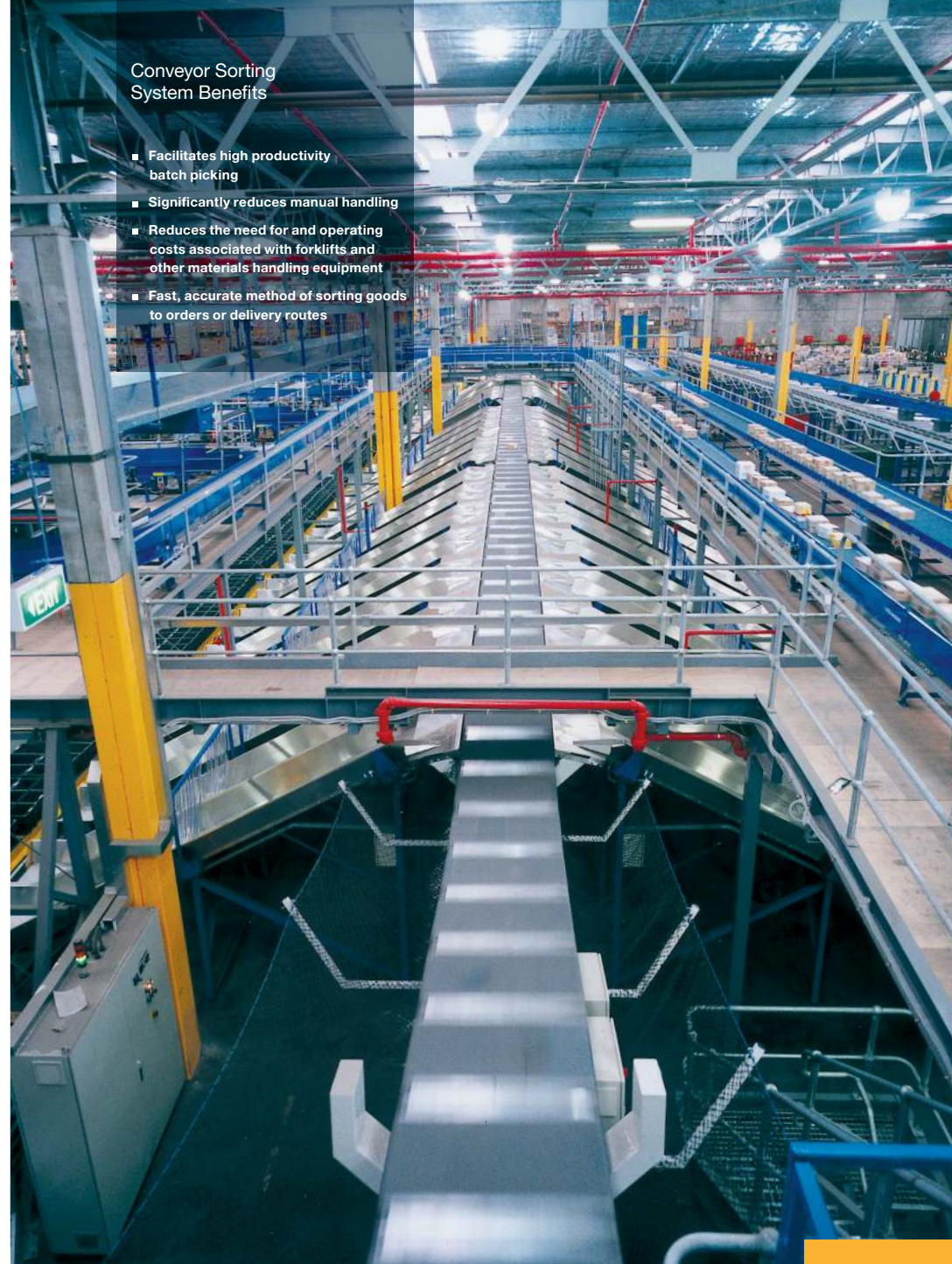
Sorters can be integrated into other functions, such as transferring goods from one part of a facility to another, from one process to another or consolidating items from various areas. Several different types of diverters can be used including Sliding Shoe, Pivot Arm, Pop-Up Wheels, Tilt-Trays and Crossbelt Sorters, with selection based on factors including product characteristics, conveyor speed and required throughput.

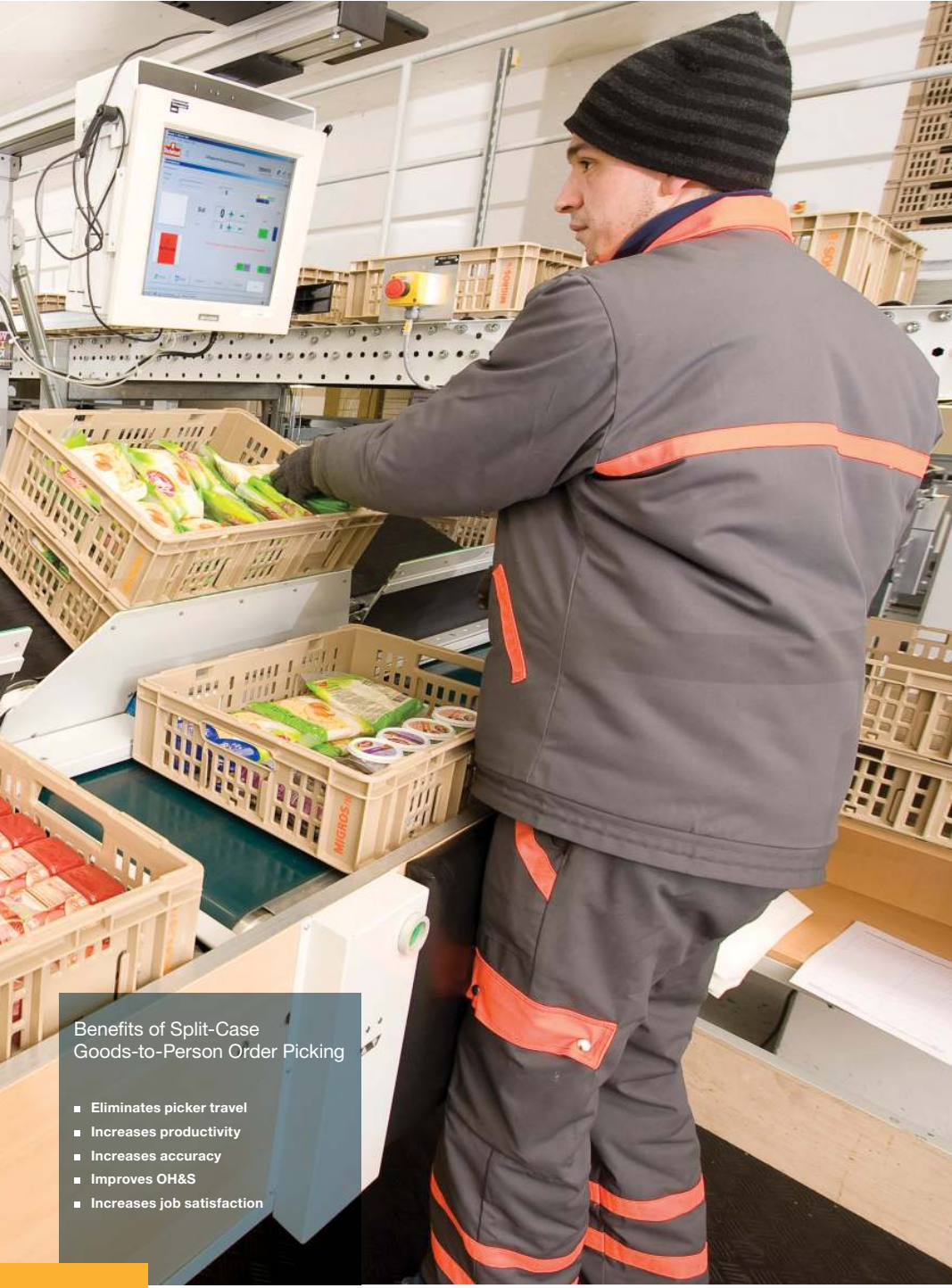
*Assumes average carton length of 400mm



Conveyor Sorting System Benefits

- Facilitates high productivity batch picking
- Significantly reduces manual handling
- Reduces the need for and operating costs associated with forklifts and other materials handling equipment
- Fast, accurate method of sorting goods to orders or delivery routes





Benefits of Split-Case Goods-to-Person Order Picking

- Eliminates picker travel
- Increases productivity
- Increases accuracy
- Improves OH&S
- Increases job satisfaction

Split-Case Goods-to-Person Order Picking

Let the goods do the travelling...not the picker

Imagine how much more efficient, productive and safe your order picking team would be if the goods they needed to fulfil orders came to them, instead of them having to travel, find and transport the goods themselves.

The principle of Goods-to-Person (GTP) picking is not new. But changes in OH&S regulations combined with advances in technology and software are increasingly making GTP attractive for many distribution operations.

One of the most effective ways of increasing order picking productivity and throughput is to eliminate the time wasted traveling between picks by bringing the 'Goods-to-Person'. Dematic's innovative, semi-automated, GTP distribution solutions comprise two key sub-systems:

- Automated buffer storage systems which sequence and transport the required items to Pick and Put Stations in the correct order to facilitate efficient order assembly; and
- Ergonomically designed, manually operated Pick and Put Stations for high rate order fulfilment (1,000+ picks/hour) across several hundred line items.

Rapidpick Ergonomic Pick and Put Stations

Dematic has developed and implemented ergonomic pick and put workstations capable of fulfilling multiple orders concurrently. Workstations are designed to minimise lifting, bending and reaching while achieving high rates of picking.

High Rate Put Stations

Dematic High Rate Put Stations can be an ideal solution for fast moving product lines. Directed by Pick-to-Lights, computer monitors or Voice, pickers fulfil orders without having to leave their workstation. This is only possible where sophisticated sequencing software and controls seamlessly supply the right stock to the Put Station, precisely when it is needed to match a corresponding order.

Human errors are virtually eliminated and productivity is optimised. Pick rates of up to 1,000 items/hour are possible. This is suited to high volume applications where the same product line is needed to fulfil several orders, such as for multiple retail grocery, apparel, or publishing stores.

High Rate Pick Stations

High Rate Pick Stations suit the requirements of slow moving product lines within a DC. Fed by Dematic's Multishuttle® storage and retrieval engine, these stations can deliver pick rates of up to 700 lines/hour. This means one person at a pick station can do the work of up to ten people in a traditional picking environment. Furthermore, the space efficiency of the GTP solution means the building footprint may be reduced up to 50%.



Full Case Goods-to-Person Order Assembly

Eliminate travel altogether by bringing the goods-to-person

Ergonomic High Rate Palletising Stations enable the safe, cost-effective assembly of mixed pallets. Dematic's ErgoPall employs a combination of automated storage, buffering and sequencing systems, advanced software and automated materials handling equipment, but still uses people to build the pallets.

How High Rate Mixed Case Palletising Works

As orders are processed, stock is released from bulk to buffer storage. It is then sequenced and sent to stations where mixed pallet loads are assembled. Ergonomic high rate palletising stations enable safe, cost effective assembly of mixed pallets and employ a combination of automated storage, buffering and sequencing systems, advanced software and automated materials handling equipment.

In order to assemble a stable, store friendly load, Dematic PalletGenDirector software uses different attributes of the product (length, width, height, weight, etc.) and stacking criteria factors including crushability, stability, volume of cases per layer, number of layers, the layer pattern, and family group rules unique to stores, departments, aisles and aisle sections, to determine the optimum build sequence for each pallet.

The computer-aided determination of the palletising build sequence increases pallet density, typically building cube and volume-optimised pallets with a density of 90%+ compared to the 70 to 80% density of conventionally hand-stacked pallets.

Dematic ErgoPall Ergonomic Palletising

ErgoPall Ergonomic High Rate Palletising Stations enable operators (one or two per station depending on the application) to ergonomically build mixed SKU pallets.

The ErgoPall stations are built on a mezzanine with integrated conveyors delivering a constant flow of mixed cases to the operator(s), enabling the operator(s) to simply slide the sequenced cases into position on the pallet.

Lifting is virtually eliminated and, as each layer of cases is completed, the pallet automatically lowers, enabling assembly of the next layer to begin, significantly reducing the physical effort required, and improving the safety, speed and quality of order assembly.

As the pallet is being lowered, it is stretchwrapped for stability. When all of the goods required for an order have been placed on the pallet and the stretchwrapping completed, the pallet has a label applied as it exits the system on an outbound conveyor.



Goods-to-Person Mixed Case Picking & Palletising

- Greatly increased productivity
- Safer working conditions
- Less lifting, reaching and stretching
- Store friendly load assembly
- More secure, stable loads
- Improved transport efficiencies

Benefits of Buffering & Sequencing

- Eliminates picker travel time
- No need for dedicated pick face or pick face replenishment
- Significantly increases productivity
- High accuracy reduces errors
- High density storage maximises cube, enabling smaller footprint
- Enhances inventory security & control
- Faster order processing
- Improves flexibility by staffing to suit high and low throughput requirements
- Accommodates precise sequencing of product for store friendly deliveries

Buffering & Sequencing

Storage engines driving a new age of Goods-to-Person picking

The ability to automatically pick, buffer and supply goods in the correct sequence to facilitate efficient order assembly is driving new, more cost-effective Goods-to-Person (GTP) distribution solutions.

Dematic's Multishuttle® is the next generation solution for the automated storage and retrieval of cases, totes and trays.

Providing increased performance and flexibility, the Multishuttle enhances the interface between bulk storage and functions like order assembly, dramatically increasing speed, accuracy and throughput.

With sophisticated controls and performance enhancing software, the Multishuttle can interface with a wide range of storage media and handling containers. Its inherent flexibility enables it to be easily adapted to any shape or size of building.

Multi-function Multishuttle

The Multishuttle differs from conventional AS/RS (automated storage and retrieval systems) in that instead of a single crane per storage aisle, the Multishuttle uses intelligent self-propelled carts throughout different levels of the storage system.

The carts 'shuttle' goods in and out of the very space-efficient storage system, interfacing with an integrated conveyor system which transports and delivers the goods to the pick face in exactly the correct sequence to facilitate efficient picking and order assembly.

Multishuttle: How it works

The Multishuttle buffer storage system houses the stock required to assemble the next batch of orders. As items are being picked and sent to the put or pick stations, new items are automatically inducted to replenish the storage buffer. It provides a vital interlink and buffer between bulk storage and order fulfilment, ensuring the necessary stock to fulfil orders is always on hand, improving order fill rates and customer service levels. There are a variety of options for creating a buffer store.

Full Pallet Buffers

Dematic Storage and Retrieval machines handle palletised bulk reserve stock and can be used in conjunction with de-layering machines.

Dematic Pallet Runners create an ideal buffer store for full pallets at despatch before truck loading.

Tote and Carton Buffers

Miniload cranes can also be used to feed and replenish batch picking stations and GTP pick stations.

Accumulation conveyors are another type of buffer store, smoothing the flow of cases between processes that operate at different speeds.

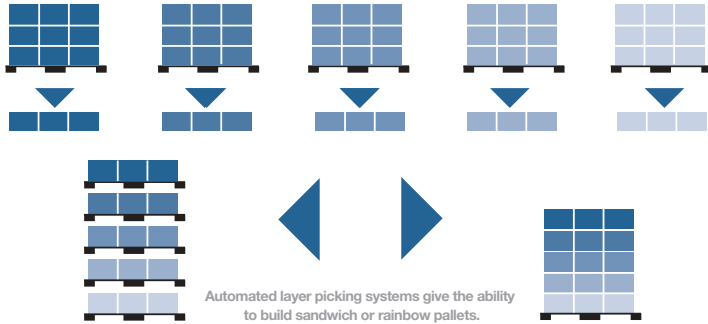


Automated Picking Solutions

Automated picking for consistent, accurate, around the clock performance

As labour costs and skills shortages increase and OH&S legislation covering lifting and manual handling becomes more restrictive, the opportunity to automate is often justifiable.

Automation delivers reliable, flexible, cost-effective picking



Automated picking solutions often require high levels of capital investment, but can be justified when volumes are high, tasks are repetitive and where regulations make them necessary.

A-Frames

In split-case applications, A-Frames, integrated with zone routing systems, are a fast, accurate, cost-effective solution for picking large volumes of small items.

Layer Picking

Automatic pallet de-layering and layer picking technologies enhance full case order assembly, especially when minimum order quantities are in place, such as in liquor distribution.

AMCAP: Automated Mixed Case Palletising

New advances in software, product storage, buffering, sequencing and recognition systems, and high speed articulated robots with more versatile product gripping tools, have enabled the development of Dematic AMCAP – an automated palletising system capable of handling a diverse range of SKUs and packaging types including boxes of various sizes, cardboard trays, open or closed cartons, bagged goods and sacks. Each AMCAP cell comprises two six-axis, servo-driven articulated arm robots installed on a mezzanine. Two conveyors automatically deliver the SKUs to the work cell, at which point they are aligned, oriented and presented to the robots for pick up, with the two robots building each pallet cooperatively.



Benefits of Automated Picking

- Labour free
- 24 hour operation
- Highly accurate
- Reduced stock damage
- More stable loads
- Safer cleaner work environment

Benefits of Negative-PUT Order Picking

- Massive productivity increases with picking rates of over 1400 cases/hour
- Can be integrated with people or robots
- Systematic identification of 'free' picks
- Eliminates wasteful activities

Negative-PUT: A World First in Order Picking

Making the goods you don't pick, the goods you pick!

Patented software developed by Dematic enables massive productivity gains simply by recognising that some goods don't need to be picked at all.

Developed by Dematic's consultants and engineers, the new Negative-PUT concept optimises case picking productivity in mixed pallet order fulfilment by taking advantage of a practice sometimes used by experienced pickers to reduce their workload.

Smart pickers will occasionally notice that among the orders they have there are a couple with which they can complete two orders with one pick.

However, the practice is very opportunistic and a systematic approach can identify all negative pick opportunities.

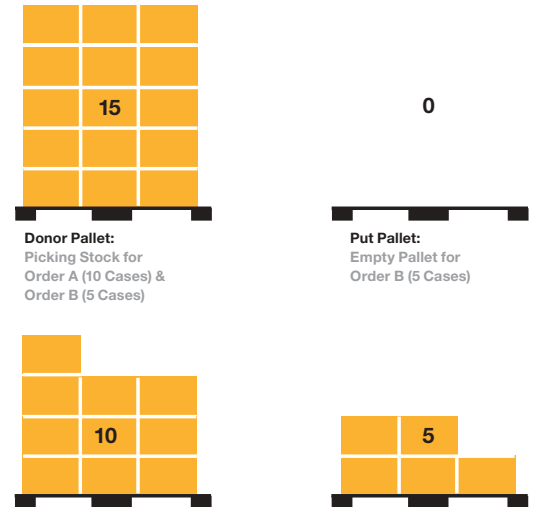
The productivity gains which can be made by matching like orders and picking them in a high rate pick module are very substantial. Dematic's patented Negative-PUT software uses a number of complex algorithms to re-sequence orders and generate the highest quantity of negative pick opportunities and the optimum order fulfilment sequence for any batch of orders.

How Negative-PUT Order Picking Works

Stock required for the Negative-PUT process is assembled in a staging area adjacent to the module. Full and empty pallets required for the pick modules are loaded by forklift onto integrated pallet conveyors. Each time a new order is to be processed, the conveyors automatically deliver two full pallets (donor pallets) and two empty pallets (put pallets).

Large screen workstations provide clear visual instructions, with the Negative-PUT software directing the operator to transfer a number of cases from the donor pallets to the put pallets, which are then collected for further processing or taken direct to despatch. The net effect of Negative-PUT is that it makes it possible to despatch more than 20% of your products without physically touching them. That's smart.

How Negative-PUT picks more, by picking less



By simply transferring five cases from the Donor Pallet to the Put Pallet Order A (10 Cases) and Order B (5 Cases) are completed. This means the 10 Cases for Order A have been picked for free.



Wireless Logistics Solutions

Real-time paperless solutions for increased visibility, accuracy and productivity

Imagine knowing where all of your stock, orders, people and equipment are whenever you need to know. Real-time wireless logistics solutions empower managers with accurate information when and where it is needed. Decision making is enhanced, service levels are increased, and costs are reduced.

Customers expect orders to be processed and delivered in ever-tighter timeframes, which means supply chain visibility is increasingly important.

Because of this, enterprise-wide, real-time information management and communications systems are vital to ensure you know what is going where, and when, at any given time of the day. The use of wireless data networks to real-time enable the transfer of data in distribution centres is now a standard feature of most DCs. RF, RFID and Voice-Directed Computing reduce errors, improve OH&S and productivity, and provide track and trace functionality from goods receipt to despatch.

Dematic's Real Time Logistics group has been Australasia's leading wireless mobile computing and IT solutions integrator for supply chain applications for more than 20 years.

We offer unmatched logistics applications experience and a 'Best of Breed' approach to wireless mobile computing and IT systems, working closely with many of the world's leading IT technology and software providers.

Our vendor-independence means that while our solutions may include technologies and software from several suppliers, customers enjoy the benefit of single source responsibility that delivers the logistics results customers expect.

Over the past decade, Dematic's Real Time Logistics group has integrated tens of thousands of wireless mobile computers across hundreds of sites throughout Asia Pacific. We also operate the largest, vendor-independent 24/7 RTL Service Network in Australasia.

'Best of Breed' Solutions Portfolio

No single vendor has the range to meet the needs of every wireless application. Accordingly, we have alliances with many of the major technology solutions providers.

Dematic RTL technologies and services

- [RTL systems integration](#)
- [Wireless networks \(WLANs/WWANs\)](#)
- [Scanners and other data collection technologies including RFID and Vision systems](#)
- [Hand held, wearable and vehicle-mounted wireless mobile data computers/RF terminals](#)
- [Voice-directed computers and Voice over IP \(VoIP\)](#)
- [Real-time locating systems \(RTLS\)](#)
- [POD and enterprise mobility solutions](#)
- [Printers and peripherals](#)
- [24/7 RTL service](#)



Benefits of Real-Time Logistics Solutions

- Increased productivity
- High levels of accuracy - +99.9%
- Greater supply chain visibility and traceability
- Accurate and timely management information and reporting
- Informed decision-making
- Efficient resource allocation and utilisation
- Improved data integrity and inventory management
- Enhanced customer service