

Shelf-ready solutions

How far can they go?

PLENTY OF MACHINES ARE AVAILABLE TO PROVIDE COMBINED TRANSIT AND DISPLAY PACKS, AND THE UPTAKE OF SHELF-READY PACKAGING BY SUPERMARKETS STILL LEAVES ROOM FOR EXPANSION. PAUL GANDER LOOKS AT RETAILER'S ATTITUDES.

The last 50 yards of the retail supply chain are the most expensive. So retailers themselves, their suppliers, their suppliers' suppliers and – naturally – hosts of consultants have worked long and hard at minimising costs at this point while also optimising use of shelf space.

Chief among these cost-cutting options has to be faster shelf-loading solutions using cases and trays with knock-out perforated sections, tear tapes or removable lids. These cut the time taken to replenish a store's shelves, while the greater availability of microflutes with improved graphic quality means that the easy-access transit container can double as an effective point-of-sale merchandiser.

Quite apart from the time taken to open and empty standard rather than shelf-ready packs, use of knives and other tools can also damage the product. So, given that these shelf-ready solutions have been available for years, logic would suggest that they should now be the norm.

There are certainly plenty of these packs in the supermarket aisles, but they are by no means as common as they might be. Phil Husband, packaging development manager at Smurfit Corrugated, has his own ideas about why this should be. "The supermarkets are trying to take costs out; but

while they're making it easier and simpler for themselves, they're making things more difficult for people further down the chain," he says.

Packaging machine systems are one of Phil Husband's areas of responsibility and, he adds, these difficulties might be far less if machines chosen by packer-fillers were more flexible.

"At Interpack, for example, there was a die-cut wraparound machine with three feed sections handling different sizes and styles – and it could be specified with more than three," he says, explaining that this is just the type of versatility that today's retail supplier needs.

"This is of great interest to the packer-filler

who currently runs standard packs through a machine but then has to find an alternative solution – often filling by hand – for more complex packs. All the retailers have different specifications."

While retailers are vocal about cutting costs, when it comes to non-returnable traded units



On-shelf display: Kellogg's 'One Touch Tray' from SCA was designed to run on existing machinery



they often appear to have no particularly clear ideas about where these savings should come from.

For example, while one of the top UK supermarket chains has individual managers responsible for crates and returnables and for primary pack innovation, there is no one manager with responsibility for non-returnables, which is so crucial for supply chain efficiency. As one of the retailer's packaging managers put it: "Suppliers tend to do pretty much their own thing."

CASE AND TRAY PACKING

Smurfit says it tries to bring retailers, packer-fillers and machinery companies together in introducing new solutions, but Phil Husband has not seen great progress to date.

"The awareness is there, and it's starting to happen," he says. "This should be a great opportunity for everyone to move forward – but in fact it is extremely difficult to push things through. With all these different parties involved, it's a bit like motorway driving when someone puts on their brakes a mile up ahead."

The starting point for any major initiative has to be a meeting of minds – ideally in the most literal sense of the word "meeting". But David Gillespie, group packaging development director at David S Smith, believes this does not happen as often as it should. "You can still count on the fingers of a couple of hands the number of times when three or more different players from the supply chain are called in to discuss optimising solutions," he says.

Transit/point-of-sale solution

For SCA, there has been a steady increase in the number of shelf-ready solutions. But again, according to product development manager Graham Willcocks, growth has not been as large as might have been expected: "I wouldn't say it's been an avalanche, but we've completed a lot of projects and we are getting involved in many more."

Like the other board suppliers and converters, SCA has to work closely with packaging machinery companies, and comes up with complete proposals for transit/point-of-sale solutions involving the pack and the machine.

"The major FMCG companies each tend to have their own preferred machinery manufacturers – preferred by their engineers or by their budget," says Willcocks. But SCA also keeps its own database, complete with the various suppliers' capabilities, specific areas of expertise – and costs.

The viability and ultimate success of any new initiative hinges, in many ways, on the equipment used. "When the retailers demand solutions from their suppliers, this is a challenge for them," says Willcocks. Unless suppliers want to incur substantial extraordinary costs, they will clearly want to wait until the packing line is due for periodical, budgeted review and replacement. "Retailers tend to get a bit frustrated by this," he notes.

He cites the example of a project developed with Kellogg's for use in Tesco stores which, from start to completion, took two years. In



Tear and display: Transit/shelf-ready case for Polo Smoothies supplied by SCA

fact, in this case, Kellogg's stipulated that the new pack should run on existing lines at Manchester and Wrexham without major changes.

By moving from a standard FEFCO 0201 style case to a high-sided, flanged tray, SCA was able to minimise materials costs for Kellogg's while maintaining product protection.

Convenience for the retailer came from the fact that the front facing of the 'OneTouch' tray could be removed simply and cleanly to leave an effective point-of-sale unit. A second version of the system was developed when feedback suggested that the initial design did not leave enough of the carton facing showing on-shelf.

In a similar project currently underway with another major cereal manufacturer, SCA says the customer will have to take out its topload case-packing equipment and replace it with wraparound machinery – a move which will need major capital expenditure.

The wider availability of microflutes has furthered the cause of shelf-ready solutions. "It's good for us, because we clearly want packs to be attractive with high-quality print," says Willcocks. "There's been understandable resistance from retailers to having brown corrugated board on-shelf."

David S Smith has seen some interest in tray and hood combinations, which have been taken up by customers including detergent manufacturers. This might typically link a decorated E-flute tray with a brown B-flute shroud, attached by glue spots. "This has increased in popularity," says Gillespie. "The whole point is that the combining of the two halves was done in the converting plant, so that the composite blank can be run through a standard case-packer."

Tearstrip options are still popular for heavier materials. But, says Gillespie: "Here the market has remained relatively static. We like to think of ourselves as the market leader in this, and we've not seen any particular growth in popularity here."

Board suppliers are definitely working hard to position themselves as the honest brokers of the retail supply chain. Smurfit has a group software solution which allows calculations to be made of the overall costs associated with a particular pack style for any given product.

"We've tried to factor in every element in the supply chain," says Phil Husband. If the tool is as objective as it sounds, then manufacturers should be able to establish precisely which style is the lowest-cost option.

Apart from pack style, another related issue is unit size. "Some areas such as confectionery manufacture are more aware of the type of pack they use, and the fact that smaller packs can help to prevent stock-outs," says David S Smith's David Gillespie.

"This is certainly happening, whether a tray is used or a complete wraparound with the option of an easily-removable lid."

Type of product shipped

SCA sees the choice of pack size and style as being largely dependent on the type of product being shipped.

"When you've got larger items such as cereals or detergents, the contents are likely to need more protection, so the pack tends to be a wrap-around case or some other type of box," says Graham Willcocks. "For smaller items, a two-piece container is more common."

In general terms, a smaller unit may incur slightly higher costs through the rest of the chain, but is likely to be more efficient in-store, he says.

For Phil Husband at Smurfit, logic suggests that the retailers would tend to want smaller pack sizes for many product types. "If a pack fills the shelf, then when it's half-empty, half your shelf's empty, too," he points out. ■

IMA UK

Top-load unit suits bundled or loose toiletry bottles

A top-load machine to handle loose or bundled toiletry bottles, the BFB 3744, is the latest addition to the range of case-packers from IMA's end-of-line division IMA/BFB. In addition, the division has also introduced a new combined case packer and palletising unit, the Cartopallet.

One of the main features of the 3744 is said to be its compact dimensions, despite the high operating speed, in excess of 30 cases a minute. The machine can handle cases ranging from 150mm long by 100mm wide and 80mm high up to 500mm long, 350mm wide and 30mm high, with all motions performed by servo motors, including case erection, loading and sealing.

Infeed worm screws are employed to transport the bottles, ensuring correct orientation of the containers prior to packing, even those with a difficult shape, while a moving comb is used to collate them into the final case pattern.

Where shrink-wrapped collations of bottles are being handled the worm screws are interchangeable with an upstream BFB shrinkwrapper feeding directly into the unit.

A positive case erection system is used with the case being held on two sides during the loading operation. Once the case is filled and the flaps closed, final sealing can be by self adhesive tape or hot-melt adhesive.

Maximising the use of available space is also one of the main features of the Cartopallet combined case-packer and palletiser. The entire unit, complete with pallet storage, occupies an area less than 5 x 3.5 metres and incorporates a side loading case packer and a six-axis robot developed in conjunction with Fanuc.

The Cartopallet will load cartoned or bundled products into outer shipping cases and employs a cantilever construction to provide ease of access and cleaning. Case size range extends from 200 x 120 x 120mm up to 600 x 400 x 350mm.

The robot picks up and erects case blanks and places them in front of the carton stacking area where a collation of cartons is inserted. The case is then rotated through 90deg to upright before passing to the closing section where top and bottom flaps are sealed with tape or hot melt.



Designed for large bags: Barry-Wehmiller delivered these two side load case-packers earlier this year

Filled cases are then picked up by the robot and stacked on a pallet in a pre-set pattern.

IMA makes the point that use of the six-axis robot also allows operations such as check-weighing, ink jet coding and labelling to be readily integrated into the system.

More information - enter 101

BARRY-WEHMILLER EUROPE

Case-packers designed to handle large bags

The first two case-packers to be built in the UK by Barry-Wehmiller Europe have been delivered to a major British food group to pack 2.5kg gable-top bags of food mix into cases of two and four.

Based on the company's established US-built Series 300 side-load case-packers, the machines have been purpose built to European standards, with the bag handling and case-loading systems designed by Barry-Wehmiller Europe specifically to handle this size and style of pack.

The bags have to be loaded vertically, to lie sideways in the finished case for maximum stacking strength. This means that a special handling system had to be incorporated to ensure reliability, as Barry-Wehmiller Europe managing director Reno Poeti explains.

"To get the best stacking strength on pallets the bags not only need to be on their sides, but also must fit the case tightly. So the flap created

by the gable top needs to be folded down and the bags guided at the corners, rather than the sides of the case as usual, to avoid any risk of catching the case flaps or seam."

A simple tamp system is therefore employed to fold over the gable tops of the bags prior to collation. Then, as the case is presented to the collation, a set of four guides enter at the corners and expand to hold the case taut and square and provide a clean path for the bags.

The two Series 300 case-packers have been built in right and left handed configuration to give a common operator position and can handle the 1 x 2 collation at 12 cases a minute and the 2 x 2 collation at seven cases a minute. Size change, using handwheels, takes about 10 minutes.

More information - enter 102

F JAHN & CO

Wraparound systems cater for flexible packaging

Involvo, the Swiss wraparound case-packing machine manufacturer, has developed a special infeed to address increasing demand for automatic machinery to handle flexible packs, such as stand-up pouches.

"The current trend towards flexible packaging such as the Doypack pouch, has presented a new challenge to the manufacturers of end-of-line packaging equipment," points out UK agent F Jahn & Co. "These packs do not behave in the same way as cans, jars or bottles and so

CASE AND TRAY PACKING

cannot easily be marshalled into the correct collation ready for packing."

Involvo's new infeed system takes the filled pouches arriving flat in single or twin lanes and brings them to upright in the chosen collation, such as 12 x 1 or 12 x 2. The complete collation is then moved into the case-packing machine where a blank is wrapped round and glued.

Alternatively, tray and lid transit/display cases can be produced with the trays first wrapped round the base of the pouches and the lid blank applied separately and wrapped round the top.

F Jahn & Co explains that Involvo is now building continuous motion case-packers capable of 70 wraparound cases a minute for high speed applications, such as those found in the brewing industry, while intermittent motion machines are supplied for low to medium speeds, typically up to 36 cases a minute.

More information - enter 103

CAMPAK

Paper mill buys fourth machine to pack tissues

Swan Mill Paper Co in Kent has bought its third CAM case-packer for tissue products, a further SMV vertical machine.

A cantilevered design offering ease of cleaning and maintenance to GMP standards, the SMV employs CAM's Mechanical Memory system whereby colour coded datum points are held on turrets for quick size change. All turrets at size change points are simply rotated and locked into position by the operator, with no need for tools.

The machine uses grippers or suction cups to place products into the erected cases which, says Campak, provides consistent picking and placing of traditionally difficult to handle products such as flow-wraps, and soft packs such as tissues.

Like other case-packers from CAM, the SMV machine is able to operate with both slotted and die cut cases by using pins that move into the flutes of the back panel of the blank, to hold it during erection, rather than a horizontal bar that moves through the die cut slot between front and bottom panels.

This gives the machine a higher tolerance of cases of less consistent quality.

More information - enter 104

ENGELMANN & BUCKHAM

Pick-and-place units handle cases and plastic trays

Conventional wraparound trays and cases as well as returnable plastic trays can be handled on the Series 400 range of pick-and-place tray/case packing machines introduced by Schäfer & Flottmann.

The modular design allows systems to be designed to meet the specific requirements of each line, explains UK representative Engelmann & Buckham.

Further case-packers from the company include wraparound models for speeds up to 35 cases a minute and case erector-loaders for speeds up to 20 a minute. Bag-in-box systems are also built for the chemical industry.

More information - enter 105

SPRINGVALE EQUIPMENT

Case packer range will run a variety of case styles

Two case-packers built by Langenpac, Holland, are now available from UK representative Springvale Equipment.

For standard RSC/American style or wrap-around cases the mechanically driven SPC

3000 is able to handle up to 12 cases a minute. Springvale says that a major benefit is the positive opening system used for erecting the cases, which actively forms each case, rather than relying on the cases being forced open when placed in the guides.

A full range of case formats including two piece cases, trays, RSC and wraparound is handled on the Langenpac CP3, which gives speeds up to 20 cases a minute.

More informatio - enter 106

JAGENBERG (LONDON)

Twin axis robot can load all types of trays

The Twin Axis Robot from German manufacturer Automation & Fordertechnik is able to operate with all tray types, including open trays, wraparound trays, thermoformed collation trays and compartmented versions, as well as returnable transit packs.

For display tray applications with products such as jars, cans, tubs, cartons and bags the machine will pack into either a single component blank or multiple component trays, combining maximum product protection with optimum presentation, explains UK representative Jagenberg (London).

At Interpack 2002, for example, A&F demonstrated a Moduline Machine, with a Twin Axis Robot built for Cremo in Switzerland. It is



Range of formats: Langenpac CP3 can handle two piece cases and trays, RSC and wraparound cases



Tray and lid erector: Europack machine built with vibrating table for M & H Plastics

able to pack single and multipacked butter portions into either full wraparound cases or plastic returnable crates.

The A&F Duopack machines, as supplied to Nestlé, Cuddington, also demonstrate the ability to adapt to future packing requirements. In this application, ffs multipacks of yoghurt are packed into open board trays yet the machines are laid out to accept RTP units, as an alternative final pack whenever needed.

A further recent innovation from A&F is equipment to load large display trays which are placed directly onto a pallet for discount stores such as Aldi and Lidi.

More information - enter 107

EUROPACK

Tray erectors offer speed and clean operation

Europack has announced a new tray erector which, with a speed up to 40 a minute, is said to run faster and cost about 25 per cent less than comparable machines.

It has a vertical stack magazine for easy loading, hot melt gluing, factory set tooling, flexible tray discharge and PLC control.

Europack has also recently supplied a purpose built tray and lid erecting system to M & H Plastics, for plastic tubes used in cosmetics and toiletries packs.

Capable of producing eight lock-style trays a minute – without use of adhesive – the machine incorporates a vibrating table to minimise risk of contaminating the products with board fibres.

More information - enter 108

HÄNSEL UK

Catamaran style machines run RSC or wraparound

The CPA Catamaran 1 case packer built in Holland by Racupack can be configured to handle RSC/American cases as well as wraparound, allowing the machine to produce a range of transit/display packs, including full cases, trays with lids or display trays only.

As its name suggests the Catamaran is built using two fabricated side frames – the hulls – to provide rigidity and house all controls and drives within sealed compartments. The two are joined by inverted channel section bracing which also forms open conduits for cabling.

There are no working components below the machine bed, allowing spillages or packaging debris to fall straight to the floor, with no chains, hollow sections or cabling to act as dirt traps.

Hänsel UK points out that Racupack has been particularly active in developing systems for loading flexible packs into trays or cases.

The laning system employed takes a single

CASE AND TRAY PACKING

continuous stream of packs and forms two rows of product which are either pushed across into the open end of a case, or placed onto open flat blanks using a pick-and-place mechanism.

If pouches or bags are fed lying flat, then a vertical racetrack collator can be employed to bring the packs upright for sideloading via a pusher mechanism.

More information - enter 109

ISHIDA EUROPE

Pick-and-place system cuts costs for Red Mill

Red Mill Snack Foods at Wednesbury has reduced labour costs substantially with the installation of two Ishida robotic Flexible Packaging Systems (FPS) to load bags of snacks into cases.



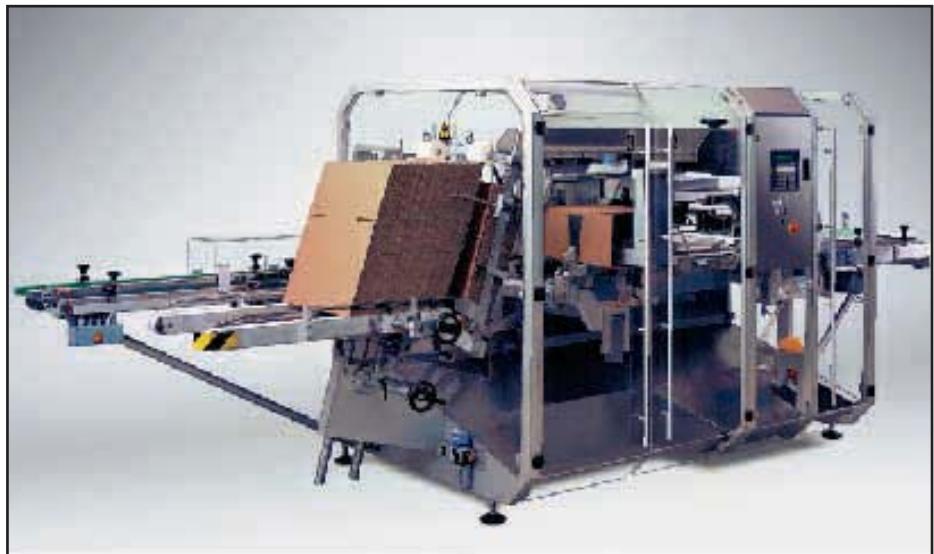
Lower costs: Ishida FPS packs bags more economically for Red Mill Snack Foods

The two machines each turn out 1300 cases a shift and can be controlled for much of the time by just one person.

Instead of being fed to a packing table for loading by hand the bags are now conveyed from the bagmaker to an Ishida seal tester. They are then checkweighed on Ishida DACS machines and collated in sets of four as they arrive at the Ishida FPS.

The pick-and-place arm of the FPS picks up a collation of four bags with one side of its suction head, then uses the other side to pick up a further collation, allowing a 48-bag case to be filled with six placements. Filled cases are then taped and palletised.

More information - enter 110



Ease of cleaning: Pester Pewo-Form UVP case-packer is aimed at the pharmaceutical industry

ULTRAPAC

Balcony-style design offers ease of cleaning

A range of side-load case-packing machines based on a balcony design, with all operating stations set above an inclined plate for ease of cleaning, is now available from Ultrapac, UK agent for the German manufacturer Pester.

Aimed at the pharmaceutical industry in particular, as well as personal care products and cosmetics, the machines avoid the use of conventional flighted chains to carry cases through the machine while, for cleanliness and ease of access, the servo drives are totally enclosed at the rear.

The Pewo-Form UVP range features a horizontal magazine, set below waist level, from which blanks are taken forward to the draw-down mechanism at constant pressure by twin belts, and quick size change via handwheels with digital indicators.

The draw-down system itself is entirely mechanical and, in addition to the suction gripper plate, incorporates a second arm that follows the case to hold it square during loading. At the same time, the leading sidewall of the case is supported against a further arm, which is hinged and mounted from above the flap closing station, allowing it to reciprocate and propel cases through taping and gluing.

This, and the balcony arrangement, leaves the underside of the machine completely open, apart from rails that support the case, allowing any packaging debris to fall through onto the inclined plate below. Speeds extend to 30 cases a minute.

The Pewo-Form UVP case-packer also forms

the central unit in the Pester Pewo-Form EVP system, working with an upstream stretch-bander and a downstream six-axis Kuka palletising unit to provide a single, integrated end-of-line packaging machine.

More information - enter 111

BLUEPRINT AUTOMATION

Robotic case-packer loads via top or side

A robotic case-packer able to load flexible packs vertically or horizontally, with change-over between the two formats taking less than a minute, is among the latest developments from BluePrint Automation.

The Swing machine can handle items such as pillow packs, four-side-seal sachets, block bottom bags and stand-up pouches at speeds up to 150 a minute and uses the new BluePrint Smart-Trak pocketed collation system to present bags to the pick-up head.

This collation system has two groups of pockets, which index in turn underneath the end of the infeed conveyor to accept the bags. Each group is driven via chain from its own servo motor so that, as one group is indexing to collate the bags, the other is able to accelerate to the pick-up point, keeping pace with the pick-and-place arm.

Different pitch pocket groups are required for different size bags but the change parts themselves are simple, low-cost and are held in place by a straightforward pin and latch fixing.

In top load mode, where bags will be laid flat within the case, the Swing machine operates simply by lifting layer after layer into the case. The degree of shingling is simply achieved by

CASE AND TRAY PACKING

the pitch of the collator pockets, relative to bag width.

Applications cover those in which bags are removed by hand for shelf loading and, more often, for products such as crisps or other snacks, where the case is made with a perforated knock-out in the side, or a half-lid, to give access and work as a merchandiser.

However, the Swing machine also includes a cassette system into which bags can first be stacked, then moved into one or more cases on a side-load basis. Typically this would suit combination transit cases/display trays where a single row of product such as a soup sachet is required in each tray. Several trays can be loaded simultaneously.

A further recent machine from BluePrint is the Beverage Packer, developed particularly for stand-up pouches in the drinks industry and able to produce a variety of packing patterns – such as

five, six, ten or 12 pouches for a multipack – at speeds up to 500 pouches a minute.

The machine is able to provide this variety of packing patterns, without change parts, as a result of the SmartBin collation system.

This uses individual pockets to accept pouches from the infeed conveyor and move them to the pick up point, allowing the number of pockets presented to the pick-up head to be varied according to pack size. Two or more cases or trays can be filled at the same time.

More information - enter 112



Top or side load: BluePrint Swing machine and (left) Smart-Trak collator

bilising system for handling lighter unstable products.

Tray blanks are positively dispensed from the bottom of a 600mm deep magazine by a motor driven lug system and are loaded manually or automatically into the magazine, which has a low level sensor. Size changes are via handwheel. Tray former width and length adjustment is motorised, via push buttons.

More information - enter 113

ROVEMA PACKAGING MACHINES

Bags or cartons loaded stacked or upright

A robotic case and tray packer that gives the option of loading bags or cartons either flat in stacks, or standing upright in rows, has been developed by Rovema to allow final packaging to be easily varied in line with product characteristics or retailer preference.

Indeed, the machine will also load returnable plastic trays, as well as shelf-ready display cases and trays, providing a high level of end-of-line flexibility, Rovema points out.

In both vertical and horizontal loading modes the Universal Loading and Filling Module operates with the same multi-belt infeed arrange-

ment to create a row of bags or cartons, lying flat, ready for loading. The number of packs in the row is variable, depending on their size and the case or tray dimensions.

The only change part in the entire machine is the handling tool. All motion changes, including case handling, are achieved via software.

For the bags or cartons to be arranged standing up, the pre-erected case or tray – entering on its own infeed conveyor – is gripped, lifted, tipped sideways some 70deg from vertical and presented to a tongue plate. This allows the handling tool on the loading arm to sweep the packs off the infeed conveyor and into the container.

After one row of product is loaded, the case or tray is lowered by the thickness of one pack, allowing the sweep-in process to be repeated until the case is full. It is then returned to upright and discharged.

When items are to be loaded lying flat within the case, the sweeper tool is exchanged for a set of grippers which lift each row of bags or cartons from the infeed conveyor, placing them into the case or tray, which remains upright throughout. Layer boards can also be loaded into a case, allowing product to be arranged in two or more tiers.

The smallest machine in the range is the ULF 443, loading cases or trays up to a maximum closed size of 400 x 400 x 300mm tall, while the larger 664 unit will handle cases up to 600 x 600 x 400mm tall.

More information - enter 114

POLYPACK

Wraparound tray packers can reach 50 trays/min

Polypack has announced its new TR Series of continuous motion wraparound tray packers, which use a flightbar system to transfer aerosols, jars, cans, bottles and so forth onto the blank at speeds of 20 to 50 trays a minute.

Product infeed can be flood, deadplate or side infeed depending on the line speed, factory layout and tray pattern required, while the machines are also able to employ a top belt sta-



Compressing bags: NCP 220-400 case packer from Nor-Reg handles 35 cases a minute

CORNWELL PRODUCTS MACHINERY SALES

Compression for bags makes best use of case space

A case and tray packing system that allows collations of flexible packs to be held compressed during transfer into the case, so saving space, was demonstrated in the UK for the first time at September's PPMA Show by Cornwell Products, UK representative of the Norwegian manufacturer Nor-Reg.

The NCP 220-400 compressing packer is available in two models to handle up to 230 or 400 bags a minute and load up to 35 trays a minute in what is virtually continuous motion.

A compact machine, occupying a floorspace of some 2.4 x 1.2 metres, the machine is built around a vertical triangular shaped track with chains that carry the cassettes into which the bags are loaded from the infeed.

Bags are pre-shingled on the infeed conveyor to make loading faster, then fed forward at conveyor height by a tongue of upper and lower belts onto the base plate of the cassette. The cassette then indexes down, and its top plate descends to compress the bags.

At this point, close to the base of the triangular track, the pre-erected case is fed forward onto the cassette to accept the bags on a side-load basis.

Case and cassette then continue round the bottom corner of the triangle, parting company at the next corner where the loaded case emerges upright for closing and the cassette continues round the remainder of the triangle back towards the loading point.

The compression packer is aimed in particular at stand-up pouches with liquids or bulky

and flexible products, but can also be employed as a high speed case/tray packer for flow wraps or small cartons where minimum compression is required.

Cassettes are adjustable to suit different collation numbers, pack sizes and case dimensions, while there is also the facility to load cases or display trays with two rows of bags, using a double infeed and split cassette.

More information - enter 115

PROPACK AUTOMATION MACHINERY

Flexible packs handled in choice of presentation

Two case and tray loaders for flexible packs – one providing cases with the bags standing upright, the other with bags laying flat – are among the German built J+P series of machines available in the UK through agent Propack Automation.

To achieve cases with product standing upright, the J+P KV machine accepts pouches, sachets, block bottom bags and the like, accelerating them on a conveyor or between inclined top and bottom belts into a pre-erected tray or case held on end at near vertical.

Speeds up to 120 bags a minute can be achieved this way.

For higher speeds, the bags are precollated and transferred into the case or tray by a pusher mechanism. As each bag or pre-collated stack enters the case, the container is indexed downwards until it is filled.

In the J+P KF350 machine the bags are loaded horizontally via belts in several layers for horizontal presentation in the case or tray. Different case packing patterns can be used for each layer and bags can be shingled as required. Speed is typically 90-120 bags a minute, depending on pack and packing pattern.

Further J+P machines include a returnable plastic tray packer, able to handle bakery items such as bagged doughnuts and bread, and wrap-around case-packing machines capable of handling very large products, such as lamps up to 1600mm long.

Propack Automation also supplies the case-packing machinery built by filling machine specialist Ronchi.

For example, the C200N top-load machine is designed principally for bottles and gives speeds up to 30 cases a minute. A compact unit, only

CASE AND TRAY PACKING

3.9 metres long, it uses servo-operated product collators and has a two station rotating pick-and-place head, which is also servo controlled. As one head is picking the product, the other is placing into the case.

Further machines in the Ronchi range are available for lower speeds, typically up to 12 and 18 cases a minute.

Also supplied by Propack is the Skinetta range of case and tray packing machines, which includes both pneumatic and servo driven models, offering speeds up to 36 cases a minute. Side-load, top-load and wraparound versions are available.

More information - enter 116

NOVOPAC (UK)

Wraparound with perforated blanks for display

Wraparound case-packers from Novopac are available for speeds up to 60 packs a minute and can be run with various styles of perforated blanks that allow transit packs to be converted into display trays.

The machines are also able to erect and load low wall trays, which allows a shrinkwrapper to be added to give the flexibility of full case or wrapped tray on the same line. Novopac has supplied several of these units for products such as wine and olive oil.

The company's tray packers form part of the Lancio range of high speed shrink-wrappers capable of speeds up to 80 packs a minute and operate by wrapping a corrugated tray around a pre-formed collation, in constant motion.

This allows higher speeds and provides greater stability than using a pre-formed tray, says Novopac.

The design of the tray blank magazine has also received attention.

The increasing number of small blanks being used, for example in the aerosol industry, has meant that it is impractical to load from under the machine, especially when in twin lane. So Novopac has developed a magazine that projects behind the machine for easy top loading.

Once loaded, the blanks are taken forward by a motorised conveyor to the feed position. When a size change is required, this conveyor can be reversed, so bringing the blanks back out to the loading/unloading position.

More information - enter 117

ROMACO UK

Pharmaceutical machine now costs less

Romaco has launched an updated automatic case packer for the pharmaceutical industry, the Promatic PAK 320, built in stainless steel on balcony basis to satisfy GMP requirements. The machine accepts case blanks close to floor level – so minimising manual lifting – and has an output of eight cases a minute.

"The machine is competitively priced, at some 13 per cent less than its predecessor and the inclusion of a set of change parts in the purchase price adds to its appeal," says Romaco UK managing director Brian Moore.

A number of improvements have been made in the PAK 320, compared with its predecessor.

These include enhanced mechanics, including a horizontal carton infeed belt to improve control, pneumatic groups or standard electrical motors replacing brushless motors, and digital adjustment systems to assist changeover, which can be achieved in 15 minutes.

In addition, cartons are now stacked upwards prior to insertion into the case which, says Romaco, improves handling and simplifies operation of the machine, while virtually eliminating possibility of stacking jams. A separate

station for the pusher has been incorporated to increase throughput.

More information - enter 118

OK INTERNATIONAL

Entry-level model extends case erector range

OK International has added a new entry level machine to its range of case erectors, the OK Performer, which offers a low level case magazine and easy size change while being available, says OK, "at a realistic price for the general market".

The established Superformer range of case erectors are offered as stand alone machines, with OK able to provide all linking conveyor systems and case closers and sealers, or as complete packing lines including the OK Polybag-in-box system with the OK 220 polybag case lining machine and DK 300 and DK 400 bag closing machines.

The machines are able to square up the case before making the bottom seal which, points out OK, gives a perfect target and datum for automatic case-loading equipment such as pick-and-place systems, and for polybag-in-box lining applications.

More information - enter 119

KAPPA MACHINE SYSTEMS

Eight new case-packers for Kellogg's



Kellogg's has installed eight System 2000 wraparound case-packers from Kappa Machine Systems, each able to handle a wide range of carton sizes at speeds up to 200 cartons a minute.

Changeover times for the machines are said to have been significantly improved, using a minimum number of change parts.

More information - enter 120