

Spotlight on bagging

A report on the latest *bagging machinery* available from PPMA members

PACKAGING OVERHAUL

Reclosable bags use tape for economy

Reclosable bags using resealable adhesive tape can now be produced on Kawashima machines as a lower cost alternative to the conventional extruded plastic zipper profile.

To meet customer requirements, Kawashima's UK representative Nupol Machinery, the new equipment division of Packaging Overhaul, recently modified one of its KBF 608 ZW reclosable baggers to produce these Easy Seal bags. Adhesive tape is incorporated into the bag in place of the male and female zipper profiles.

Nupol also represents Italian manufacturer Pentavac which has recently launched two new baggers, the Penta 2100 and the Penta 4000.

The Penta 2100 is a particularly compact machine, occupying a floor area of just 1100 x 1400mm and is only 1320mm high, yet can produce up to 60 bags a minute using laminate films or 45 a minute with polyethylene. Bag size range extends from 50 to 250mm wide and



Economy reclosure: Kawashima bagger can now use adhesive tape in place of plastic profile

from 60 to 500mm long.

The Penta 4000 has been designed specially to produce big bags – up to 325mm wide – and features a pneumatic bag spreader to hold the bag open during the filling operation and ensure a clean fill.

However, for really big bags – up to 500mm wide and 1000mm long – Nupol offers the VAI range of vertical form-fill-seal equipment. These large bags are used for multipacks of smaller bags as well as for products such as cat litter, pet food, detergents and other household chemicals.

More information - enter 180

ILAPAK

Stand-up bags suit sweets and biscuits

A machine designed specifically to produce stand-up block-bottom bags, with the corners heat sealed some 3-4mm in from the edge, to improve rigidity and appearance, has been announced by Ilapak to handle products such as confectionery and biscuits.

The new Vegatronic 2000 is capable of producing up to 80 of these bags a minute. Bag size is up to 110mm front face, 180mm flat width and 500mm long, providing a much wider range of sizes than most similar types of packaging machine currently available, says Ilapak.

Conventional pillow packs can also be made by the machine, which is equipped with an industrial PC control.

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ULTRAPAC

US range aims to improve ease of operation

The Advantage range of bagging machine made by Triangle in the USA is now available in the UK through Ultracpac and provides a variety of packaging styles, including reclosable zipper systems, as well as a number of features aimed



Advantage bagger: Features include interchangeable slide-in lightweight forming tubes

at improving ease of operation.

These include slide-in and hand-clamp lightweight interchangeable forming tubes and a power tilt assembly for loading fresh reels of film. In addition, there is a powered film unwind and self-positioning film drawdown belts, driven by a dual motor system.

Triangle's Advantage CM model, a continuous motion machine, is capable of speeds up to 180 a minute. Intermittent motion baggers are also available.

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F JAHN & Co

Twin head dairy machine now has servo drive

French manufacturer Thimonnier has developed a new generation of twin head vertical form-fill-seal machines for the dairy and liquid foods industries.

The M5200 provides higher output and efficiency than its predecessors, says UK agent F Jahn, as well as better fill accuracy and high seal integrity. These improvements, the compa-

ny adds, are the result of design changes including the use of servo-motor driven film feed and a new electronic seal temperature control.

Changeover between pouch sizes is said to be rapid and straightforward, with pouch length changes made through the control panel touchscreen and changes in width by exchanging size parts. Machine cleaning is fully automatic by means of installed CIP hardware and PLC control of the cleaning cycles.

For premade bags, Thimonnier builds a complete range of fill and seal machinery to handle three-side seal bags or the Doypack stand-up pouch, with or without reclosable features.

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COMCOUNT

Systems aimed at industrial components

Bagging machinery manufacturer Willi Maschinenbau, represented in the UK by Comcount, specialises in equipment designed particularly for industrial components.

For example, on several of the machines the filling tube is inclined rather than vertical, to allow heavy items or delicate parts to be slid into the packs, avoiding a drop and subsequent damage to both product and pack.

The packs produced feature a side seal rather than the conventional back seal, which increases the area available for thermal overprinting

and also allows the standard heat seal to be replaced with a Minigrip seal when reclosable bags are required.

Some of the Willi machines are arranged so that a thermal transfer overprinter can be mounted to print the film on the forming tube immediately prior to the sealing jaws. This, points out Comcount, can be a great advantage during changeovers where wastage of film between the printing and filling points is reduced and print positioning is made easy because the effect of adjustments can be seen immediately.

Comcount is able to incorporate the Willi machines into complete, automatic packing systems combined with their weighing and counting machines and ancillary materials handling equipment. One recent example is a twin bowl kit-packing system based on a W18 entry level machine, supplied to pack screws and plastic caps as fixings kits for the customer's products.

More information - enter 184

TNA EUROPE

Windows basis for production statistics

Aimed at snack and bakery products in particular, the TNA Robag 2Ci has been designed as a fully integrated packaging system that enables customers to monitor and direct all compatible upstream and downstream equipment such as date coders, weighers and metal detectors from a master control unit.

However, TNA says that the ultimate aim has been to go beyond the boundaries of centralised machine control.

"When we initially began writing the software for the Integrated System, it became more apparent that customers were needing current statistical information about their production lines, displayed to them in an easy to read spreadsheet or database format," comments TNA software engineer, Neil O'Rourke.

So, each time a bag is formed, the Robag 2Ci summarises and collates information from all pieces of equipment and can feed this data through to any remote PC, giving production management an immediate update.

In developing the new software for the Integrated System, TNA decided to install Microsoft Windows NT 4.0 as the operating system. This, says the company, took into account



Integral bagger and weigher: Robag 2Ci uses a Windows NT-based communications system

technical considerations such as reliability, real time response, ease of software development and ease of networking.

More information - enter 185

SUSSEX & BERKSHIRE MACHINERY

PC controlled units handle cereal bags

German manufacturer Hassia Redatron is supplying its bagging machines with industrial PC-based control and has recently delivered two FlexiBag 55/38 vertical form-fill-seal machines to Lekermatz, Germany's largest private-label producer of cereals.

The PC control provides additional capacity for machine diagnostics and also includes the machine manual which, points out UK agent Sussex & Berkshire Machinery, makes the machine much easier to operate and maintain. In addition, the PC controls the heating/cooling cycle of the sealing jaws, providing finer adjustment and faster response to any deviation.

For Lekermatz, the two machines are producing block-bottom bags in four pre-programmed sizes of 375, 500, 700 and 1000g at speeds of 60 a minute, using orientated polypropylene or an hdpe/Surlyn laminate.

Each has an extraction system to prevent dust, particularly sugar, contaminating the seal



Kit packing: Twin bowl feeders and Willi W18 bagger combination from Comcount

area and compromising pack integrity. Motors are dustproof to IP55 but additional protection is provided by an overpressure system within the machine itself.

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GAINSBOROUGH INDUSTRIAL CONTROLS

Series expands with extra options

GIC has expanded its range of VFB vertical form-fill-seal machinery, and extended the choice of features and options.

The new VFB 2000 is a mid-range machine for pack sizes up to 250mm wide x 400mm long while the VFB1, the most compact machine in the range, will make bags up to 150mm wide x 250mm long. The VFB4 accommodates sizes up to 400mm wide x 500mm long. Weights covered by the range extend from 25g to over 14kg.

All are available with options including gas flushing, print registration, overprinters and stainless steel or treated aluminium fabrication. A touch-screen operator interface is standard and the control system can be either PLC based or specified with a fully integrated motion control package.

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CSS PACKAGING MACHINERY

Compact unit offers easy access

A discharge conveyor to carry filled packs to the rear of the machine is included as standard on the BDO 1000 bagger from CSS, giving easy access to the front of the machine for threading up wrapping material, for cleaning, and for hand loading products where required.

However, the discharge can alternatively be positioned in front of the machine, should plant layout dictate.

In spite of its small footprint – just 1200mm deep x 760mm wide – the BDO 1000 can provide bags up to 200mm wide and 600mm long, running at speeds up to 60 a minute.

Operation can be semi or fully automatic and there is a range of feeding systems such as weighers, augers, counters and liquid pumps.

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FORDS PACKAGING SYSTEMS

Stand-up bags for free-flowing products

Fords has recently become UK agent for Italian manufacturer ICA which specialises in bagging equipment for free-flowing products such as sugar, flour, fresh coffee, pasta, sauce mixes, confectionery and rice.

Stand-up bags can be produced with a gable top or folded flat top and there is a range of feeding and filling equipment made by ICA including augers, cup fillers and weighing machines.

When handling coffee, the ICA system includes gas flushing and valve application which allows the product to be packed immediately after roasting and grinding. The de-gassing is able to take place gently inside the bag, avoiding loss of aroma and oxidation, points out Fords.

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AUTOMATED PACKAGING SYSTEMS

Pre-made bags filled at speeds up to 120/min

The Sprint pre-made bag filling system launched by Automated Packaging provides speeds up to 120 a minute and, says the company, flexibility for both short and long runs. Applications include individual products and kits of mixed components for both industrial and retail markets.

Filling can be carried out either manually by up to three operators, or via a wide range of automatic infeed systems, or even using a combination of the two methods.

"Sprint is ideal for kit building applications, especially where volumes dictate that multiple operators are required," says APS.

"Product to be bagged is simply picked from Sprint's huge optional load tray and dropped directly into the bag from above. A combination of a square or rectangular opening and a system that guarantees fully opened bags makes Sprint well suited to lightweight and 'fiddly' items."

The system can also be supplied with the APS Precision in-line thermal transfer printer to add text, bar codes or other data directly onto each bag. Additionally, using a special double head print unit, it is possible to print on both sides of

each bag, putting, for example, product information on the front and a bar code on the reverse.

In operation, a number of bags are opened along the Sprint's loading area and presented for filling either in continuous mode, intermittent mode with adjustable fill time, or batch indexed in groups of up to 20.

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Higher speeds: The new Sprint pre-made bag filling/sealing system

PFM

Entry-level unit handles variety of products

Chemicals, grated cheese and powdered soups are among the latest applications for PFM's Zenith entry-level machine, which offers a mechanical speed up to 60 bags a minute.

Hepworth Chemicals is using the machine with an auger filler to handle powdered chemicals, while Dew-Lay products is packing grated cheese in modified atmosphere packs, dosed via a linear weigher. R Sarant & Co has just taken delivery of its second Zenith for powdered soups in bags ranging from 200g to 1kg.

All three machines are in stainless steel execution for cleandown with aggressive agents.

PFM's high speed machine is the PV 260 able to produce up to 140 bags a minute and is employed packing mozzarella cheese, chemicals, washing powders and snacks.

Further machines include the PV 200, specially designed to pack up to 1 litre of milk in polyethylene film at 40 bags a minute, the Polar Servo for speeds up to 90 bags a minute and the PV 320, developed for big bags up to 380mm wide and 500mm long.

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SUPREME PLASTICS

Pre-made bag sealer is largest in range

The Joker 425U pre-made bag sealing machine introduced by Supreme at last September's PPMA Show will handle both polypropylene and polyethylene bags and is aimed at medium-volume producers.

The preformed bags used are in a continuous chain with channels that allow the bags to run along two fixed guide rods which, with no moving parts, support and open each bag at the point of filling.

The 425U model is the largest model in the Joker series, featuring longer sealing and cooling units which enable faster packing and greater capacity, making it particularly suitable for in-line applications, says Supreme. A movable control panel allows the operator to work from either side of the machine.

A stainless steel version is also available, the 425UR, for packing food and other products where hygiene is crucial.

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SANDIACRE PACKAGING MACHINERY

Sealed corners improve pack rigidity

Sandiacre machines can now be equipped to produce a stand-up bag with seals at each corner to improve rigidity and appearance.

Called Quad Pack, the system was launched at last September's PPMA Show and allows a fin seal, 4 to 12mm deep, to be created at each corner while the conventional back seal can be placed either at any position across the rear face of the pack or integrated with one of the fin seals.

"Merging the back seal with a fin seal augments product and pack presentation by leaving the rear of the pack totally seamless, and also reduces the amount of film used in the manufacturing process," points out Sandiacre. "The plain seamless surface of the back panel can then be utilised for improved presentation of product graphics or other product information, such as ingredients."

Equipment required to produce the Quad Pack is currently available as a retrofit to exist-



Stiffer corners: *The Sandiacre Quad Pack system makes stand-up bags more rigid*

ing Sandiacre TG250, TG320 and TG400 intermittent motion machines or as a standard option on new machines in that range.

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WARD BEKKER SYSTEMS

Weigher control from bagger's display screen

The display screen on Inno-Tech baggers can be used to control multihead weighers and program downstream checkweighing equipment, so reducing changeover times and the time needed for operators to become familiar with the systems.

Further features include dual purpose temperature control electronics allowing polyethylene and laminates to be handled on the same machine, and constantly heated polyethylene welding jaws for greater jaw life.

Capable of speeds in excess of 110 bags a minute, the machines can be fitted with automatic film tracking and vacuum pull down belts to ensure consistent high-speed operation.

The range of machines includes the smaller model 2500 for handling bags up to 250mm wide, the Model 3800 for handling bags up to 380mm wide and the larger 6000 machine which can handle bags up to 600mm wide x 1200mm long.

Ward Bekker has also recently introduced the EVO series of machines, with PC control and servo drive.

The high speed Swing continuous motion machine incorporates a film tracking system to ensure that thin and sensitive films can be handled, with minimal belt wear, at speeds in excess of 140 bags a minute.

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SOUDAL

Cheese, coffee and diced meat applications

Grated cheese, coffee and diced meat are among products now being filled on recently delivered Line Equipment machines, says representative Soudal.

The grated cheese is weighed out for packs up to 5kg, and gas flushed, while the coffee, depending on whether beans or ground, is weighed or augered into gusseted packs, sometimes with a flat base.

For the diced meat a dual sealing system allows both polyethylene and laminate films to be handled. Also fitted to this machine is a new cross web zipper unit allowing the customer to produce reclosable packs when needed.

The Line Equipment LE360 bagger is built in stainless steel and can operate at speeds up to 60 packs a minute, producing bags up to 360mm wide and 500mm long as standard.

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ERAPA (UK)

Layflat tubing for bags up to 1.5 metres long

The Simplicita Bag Plus 400 introduced at last September's PPMA Show by Erapa employs layflat tubing and can be set up and changed in seconds to make bag lengths from 50mm to 1.5 metres without changing the film.

The machine forms the bag, and then holds it open ready for the product to be loaded by hand or by an automatic system. It then seals the bag and repeats the cycle. Bags up to 400mm wide can be made from film of 40-100 micron.

As well as creating bags for immediate filling and sealing, the Simplicita machine can also be employed to convert layflat tubing into open bags for off-line packing.

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ROVEMA

Magnesium parts aid machine speed

Rovema's new VPI intermittent and VPK continuous motion series vertical form-fill-seal units employ magnesium for the first time in a packaging machine design, to reduce inertia in moving parts and allow the machines to operate more efficiently and at higher speeds.

As a result the VPI 260, for example, can reach speeds of 125 cycles a minute, while the VPK 260 is able to run at 180 cycles a minute.

Both machines employ servo drives, and up to 1000 different programmes can be stored in the PC-based controls. On the VPI, individual setting of sealing pressures and times allows difficult or specialised films to be run and high quality seals obtained.

"The use of magnesium allows the VPK to generate sealing pressures of up to 8000N and sealing times of up to 75 per cent of the total cycle time," adds Rovema. "Jaw motion control

can be adapted to the specific properties of individual packaging materials to ensure high seal integrity."

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PACMATEC

Compact unit for granules and powders

The latest addition to Pacmatec's range is a small, low cost intermittent motion vertical form-fill-seal machine for granules and powder.

The HP-280 is a compact bagger with a small footprint, and can handle a range of products such as nuts, rice, beans, seeds, sugar, tea, salt, and popcorn at speeds up to 120 packs a minute, using laminate film and providing an hermetic seal.

Bag size range is 40-175mm long and 30-130mm wide. Feeding systems include auger, adjustable volumetric cups and electronic weighers.

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WLT

Inclined bagger aimed at larger products

An inclined form-fill-seal bagging machine, aimed in particular at large lightweight items such as plastic automotive components, plastics plumbing fittings, stationery and textiles has been announced by WLT, a distributor for the Swiss manufacturer Willi.

The model W50 machine is able to provide 40-150 micron polyethylene bags up to 450mm wide, with maximum product height of 180mm and can operate at speeds up to 40 a minute.

Optional equipment includes a hand feed table, thermal transfer print unit, labeller and an easy-open system for the bags. The machine itself occupies a footprint of 1.8 x 2 metres.

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For full details of PPMA members able to supply bagging machinery, enter 404 on the free reader service card in this issue, or visit the PPMA web site: www.ppma.co.uk