

PPMA Machinery

Issue 5, Volume XVII. September/October 2006

UPDATE

The only 'machinery only' journal for processing and packaging



LIQUID FILLING

**Pharma industry
drives technology**



PREVIEW: THE PPMA SHOW 2006

**The complete
production
line event**



THERMOFORM-FILL-SEAL

**Food trays now
on top form**

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ISSUE 5, VOLUME XVII. SEPTEMBER/OCTOBER 2006

Machinery UPDATE

THE JOURNAL OF THE PPMA

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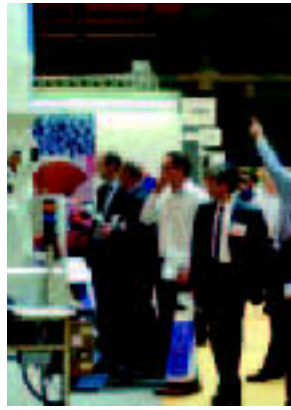
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Ethics in business

Do we live a world where business-to-business ethics are regarded as important and can be maintained mostly voluntarily? By and large I believe we do, although from time to time exceptions creep in and test my faith.

Right now, for example, there is serious disquiet in the processing and packaging machinery industry over arguably unethical requirements from some customers, such as retrospective discounting, punitive or unreasonable terms and, perhaps of most concern, requests for cash payments under the guise of maintaining a presence on a company's approved supplier list.



As a trade association the PPMA has no place getting involved in relations between its members and their customers by advising, assisting or attempting to influence specific commercial negotiations. But on a broader front the PPMA does have the duty to highlight the anxieties of the industry it represents. Indeed, some of our members have specifically requested that we do.

Ten years back, the topical issue was deposits on machinery, or rather lack of them from some purchasers. In the last five years it's been reverse Dutch auctions along with other purchasing ploys that reflect what is happening between retailers and FMCG manufacturers.

Now globalisation seems to be leading the industrial purchasing function to think in terms first of reducing its numbers of suppliers and then, by partnership planning – or commercial clout – getting the best deal. But there's nothing intrinsically wrong in that.

The real danger is the possibility of machinery, materials and ingredients getting lumped together, under a purchasing mind-set that believes a single policy works equally well for all.

So, for example, machinery suppliers with extra machinery on order get dragged into the same questionable retrospective rebate systems imposed on converters when material purchases exceed a certain threshold, but with no recognition that their cost structure is entirely different.

With materials, the purchasing relationship and process is continuous, logistics are paramount and the product – film, paper, board or bottles – is differentiated mainly by price and delivery.

But processing and packaging machinery is simply not the same. There is rarely a machine built without some degree of customisation and rarely do two machines from different suppliers have exactly the same combination of features, cost and performance.

Onerous terms, sometimes within otherwise innocent documents, that place a quite disproportionate burden on the supplier will also inevitably inhibit innovation, particularly by the smaller company.

However, the really questionable ploy at the moment is charging for a place on the approved list. Some machinery suppliers refuse or negotiate, others pay up. But let's be practical. It is highly likely that such additional supplier costs will inevitably find their way back into the next price, lead time, or service bill. Who's kidding whom?

Luckily, the anecdotal evidence from PPMA members is that many purchasers who once looked at machinery and materials in the same light have come to recognise the difference, while others with particularly onerous terms of purchase have at least shown a readiness to negotiate more appropriate conditions.

Machinery suppliers know it's a tough business environment right now. But without fair business practices and at least a reasonably level playing field, standards of innovation, service and a willingness to shoulder the risks of machinery development will inevitably suffer – and that is in nobody's interest.

Chris Buxton

Chief Executive, PPMA

THE PPMA SHOW

PPMA Show 2006 offers added value for visitors

This year's PPMA Show opens its doors on 26 September with over 300 exhibitors and a number of new features to boost the value of the three-day event, which takes place in hall 5 of the NEC Birmingham.

New exhibitors at this year's show are boosting the size and diversity of the exhibition while there is also an RFID Theatre, a series of business advice seminars and a technical information centre where

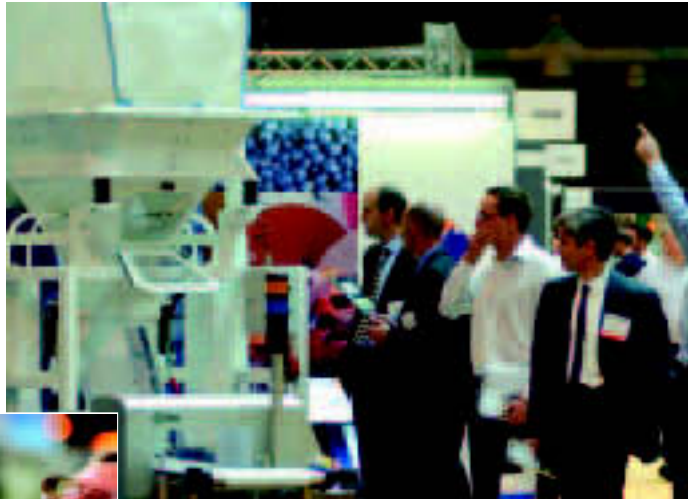
visitors can take a seat and learn quickly about the new technology available for them to view.

In the RFID Theatre leading experts and

representatives from major brand owners and retailers will discuss the fundamentals of RFID; integrating tags into different packaging substrates, key supply chain challenges and potential RFID labelling solutions.

The business advice seminars hosted by the PPMA Show will consist of a series of short but topical presentations concentrating on key management issues in manufacturing industry today.

Subjects include: Managing people, getting the best from your team; Marketing your business as an SME; and Managing employment risks. In addition there will be an introduction to the latest



The PPMA Show: Visitor friendly with the accent on working demonstrations

training software for machinery operators.

Meanwhile the traditional strength of the PPMA Show in showcasing the very latest in processing and packaging machinery continues in full measure

with a considerable number of exhibitors planning new product launches. See our show preview, starting on page 15.

Full details of seminars at the PPMA Show are available on the exhibition web site: www.ppmashow.co.uk



What's new at PPMA 2006

Adpak Machinery: Range of Italian built lid sealers, vacuum packers and thermoforming machines.

Automac (UK): TopLid modified atmosphere system.

Automated Packaging Systems: FAS SPrint bagging machine.

Bosch Packaging Services: Entry level flow-wrapper capable of 250 a minute.

Cermex: SB27 side-load case-packer, built on a balcony basis.

Conveyor Systems: Twin lane spiral conveyor that can also be employed for accumulation and as a buffer store.

D2 Food Systems: Vortex S cook, quench and chill system.

Easiweigh: Entry level linear weighing machine.

Easypak: Turntable pallet stretchwrapper priced at £1999.

Endline Machinery: Partnership with Quin Systems to build a range of high speed case packers.

And much much more ...

For full details of exhibits see the PPMA Show preview starting page 15.

ORDERS AND INSTALLATIONS

Seven labellers for bacon plant

Seven labellers have been supplied by Herma to Direct Table Foods for its new Bury St Edmunds bacon processing plant, which replaces the factory lost by fire in 2004.

The Herma 692 top and bottom labelling systems, one for each production line, are fitted with the latest Herma 400 servo driven label applicators, each with its own on board control system. Speed is up to 80 packs a minute.

To provide flexibility, each

machine has three applicators: two on the top, one with a hot foil printer for coding and applying the primary label, and the second for flash labelling during special promotions. The third is mounted under the split conveyor for applying a base label.

PPMA DIRECTORY

Machinery details at your fingertips

The 2006-2007 edition of the *PPMA Processing & Packaging Machinery Directory* is now available giving comprehensive details of machinery supplied on the UK market by the Association's 340 members.

Running to 354 pages, the directory includes a full list of PPMA members, with the machinery they build or import.

The index covers over 1200 processing and packaging machinery classifications while there is also an index to more than 1000 trade names and a full guide to the overseas manufacturers represented in the UK by PPMA members.

The directory also contains a section on PPMA associate members and the components and auxiliary equipment they supply.

The directory is available from the PPMA (tel: 020 8773 8111, fax: 020 8773 0022, e-mail: publishing@ppma.co.uk).

PEOPLE

Pago names new md

Craig Peachey (right) has become managing director of Pago, Colchester. He joined the company in 1994 and has since been responsible for finance and operations.



Ann Stirling Roberts, director of operations at Pira, is leaving the organisation in October after 11 years. Her position as a key contact in Pira will be taken up by Greg Wood, who has spent more than 20 years at Pira and heads up the packaging, paper and print consultancy groups.

Phil Lewis has become Markem System's sales manager for the West Midlands and mid South Wales areas.



From discovery to manufacturing: Opportunities in UK pharmaceuticals

This year's ISPE UK affiliate seminar on 9 November – entitled *Opportunities in UK pharmaceuticals from discovery to manufacturing* – will look at the prospects for the UK's pharmaceutical industry against a background of competition from emerging economies and additional challenges from legislation, regulation, 'patient power' and intense media scrutiny. Organised by the Southern Region of ISPE UK, the seminar takes place at the Royal Bath Hotel and Pavilion, Bournemouth and is accompanied by a tabletop exhibition staged by 46 suppliers of equipment and services. The annual awards dinner will be held in the evening.

The morning session will establish the current environment and how regulators and government are working not only to sustain the industry but to encourage and nurture growth in the coming years. The afternoon session will focus on the opinions of leaders within discovery, development and manufacturing who will be highlighting the areas where the UK can compete, excel and break new ground.

Seminar agenda

8.00 Registration and coffee.

9.15 **The current position of the industry and the external influences.**

Seminar introduction and welcome by Jon Youles, chairman ISPE Southern Region.

Keynote address: Dr John Saul, SVP, strategy and global logistics, GSK.

10.45 Coffee break and tabletop exhibition.

11.15 **Medicines Regulation – Friend or Foe?**

Looking at the role of the Regulators, the model for the future and how regulators balance benefit and risk.

Gerald Heddell, director, inspection and standards division MHRA.

A forensic view from outside the industry.

Hitesh Patel, director pharma and healthcare forensic, KPMG.

A business viewpoint.

Michael Carrol, head of pharmaceutical operations, Novartis, Horsham.

1.00 Lunch and tabletop Exhibition.

2.15 **What are the opportunities for the UK pharma industry?**

Chairman's introduction.

Guenter Koerblein, senior adviser in pharmaceutical technologies.

Opportunities in discovery.

Nigel J Cussans PhD, director, research services, global operations international, Pfizer Sandwich

API Process R&D in the UK - Future opportunities and survival strategies.

Dr Alan R Harris, associate director, business development, Global PR&D, AstraZeneca.

ISPE Strategy.

What are the ISPE and UK affiliates doing for the future?

Nigel Frost, chairman ISPE UK Affiliate and Alan Halstead, PAT Regional COP.

3.45 Afternoon tea and tabletop exhibition.

4.15 **Manufacturing opportunities for investment and growth.**

Chris Dowle, director of advanced processing, Centre for Process Innovation.

Chairman's summary and open forum.

5.15 Close.

The cost of attending the seminar is £150 for ISPE members and £180 for non-members. Reservation details from Pippa Shaw, e-mail: pippa@meeters.co.uk

Seminar sponsors:

Bovis Lend Lease Technology, CI Electronics, Currie & Brown, Fauber Maunsell, Faithful & Gould, Haden Freeman, MRC Systems, Machan Consulting, PM Group.

Participants in the tabletop exhibition:

ABB, Amec Group, Ardmac Performance Contracting, Atritor, Austin Co, Bovis Lend Lease Technology, Buck Systems (GEA Process Engineering), Camfil, CEL International, CI Electronics, Concord 21C, Christ Water Technologies, DGP International, Dockweiler UK, Elga Process Water, Enterprise Ireland, Epsilon Pharmaservices, Eurotherm, Festo, Foster Wheeler Energy, Freestead Process Technology, Glatt Protech, Haden Freeman, Health Protection Agency, Hornogold & Hill, Huttlin, Industrial Technology Systems, Kemutec Powder Technologies, GRC Mott MacDonald, Matcon, Matini Process Pipework, MRC Systems, MSS Clean Technology, Orthos Engineering, Pharmadule, Pharmaceutical Engineering Advanced Training, PPMA, Roplan, Shield Medicare, Siemens A&D, Skanska Pharmaceutical Group, Stedim, Testo, TTL, Ytron-Quadro (UK).

PPMA SEMINARS

Seminar agenda moves on to pharma process and robotics

Seminars on developments in pharmaceutical processing equipment and on the use of robots in packaging take place in October and November, concluding the 2006 Technology Series organised by the PPMA.

The first, Pharmaceutical Processing Equipment (18 October) will examine how recent developments in the design of processing equipment, particularly improved standards of containment, are improving the production environment, efficiency and quality.

Subjects to be covered are: Recent developments in side-vented coating pan technology, George Smith, head of process and development, Manesty. A detailed look at tablet counting,

COMPANY NEWS

Packaging role for 5000th ABB robot sold in the UK

ABB has sold its 5000th robot in the UK market to RTS Flexible Systems, which is using the machine – one of three IRB 340 FlexPickers in the order – to produce an end-of-line system for Allied Bakeries.

Martin Walder, managing director of ABB Robotics UK commented: "RTS is breaking new ground in flexible automation solutions by focussing its skills on relatively untapped areas of growth, such as food manufacturing industries and life sciences, rather than concentrating on the established stronghold of the robot – the automotive industry."

Roger Wayte, sales manager,
Cremer UK & Ireland

What happens inside a high-shear granulator, Prof MJ Hounslow, HOD Particle Products Group, University of Sheffield.

Principles involved in the scale up of high shear liquid mixers, Matt Smith, director, Silverson Machines.

One Pot systems for liquids and semi liquids, Nick Ruecroft, sales manager, process and primary packaging, Romaco.

Single pot dry processing technology, Griet Van Vaerenbergh, pharma marketing co-ordinator and product manager, pharma, Niro Pharma Systems.

The seminar takes place at the Knowsley, Merseyside, premises of solid dose production equipment specialist Manesty.

The second seminar, Future uses of robots in our industry (2 November) will look at the variety of ways that robots and robot technology is being taken up in the packaging and

processing industry.

For example, can we expect to see more and more types of packaging machinery replaced by multi-purpose industrial robots, or is the current trend of incorporating robot mechanisms into packaging machinery the way ahead?

Dr Ken Young of the University of Warwick will explain both the advantages and disadvantages of current robots and forecast how the technology will develop and influence the design of packaging machines. Don Braggins from the Industrial Vision Association will explain what can be achieved using the latest vision systems.

Further speakers from robot manufacturers and systems integrators will provide case history studies.

The seminar takes place at Salford University, Manchester.

Booking and further details from: Emma Corney at the PPMA, T: 020 8773 8111
E: emma.corney@ppma.co.uk



Robot 5000: ABB Robotics managing director Martin Walder (left) presents RTS managing director David Bradford with a commemorative plaque

ABB estimates there are 14,200 industrial robots in use in the UK.

Endline Machinery, the end-of-line machinery specialist, has reached its quarter century. The company started up in 1981 as one of the first British manufacturers of

small case-taping machines and now produces a packaging machinery portfolio of 55 models. These include case sealers, case erectors, case packers, packing stations and conveyor systems.

Interroll, the international conveyor components and unit-load handling specialist has acquired German drum motor manufacturer BDL.

Adpak Machinery Systems is to market the Italian-built Reepack range of lid sealers, vacuum packers and thermoforming machines in the UK and Ireland.

Selo-Bollans has been appointed UK and Ireland representative by Italian manufacturer Sabalpack, which builds stainless steel vertical form-fill-seal machinery and complete packaging systems including bulk feeders and weighing equipment, particularly for the food industry.

PARAMOUNT PACKAGING SYSTEMS

Flow-wrapping raises output for patient hygiene products

Reed Shilling Healthcare, Didcot, Berkshire, has automated the packaging for its Oasis range of 'wet-wipe' waterless bathing systems, increasing output to keep pace with rising demand from hospitals, nursing homes and other care organisations.

Aimed at eliminating risk of cross infection in bed-bound patients from shared equipment such as washing bowls conventionally used in giving bed-baths, the Oasis range is based on non-woven pads with a variety of wettening fluids, including anti-bacteria formulations to prevent spread of MRSA.

A manual packing operation, using pre-made bags, has been replaced with a Fuji Alpha 6 flow-wrapper which, explains Reed Shilling Healthcare managing director Stephen Ley, has raised speed, reduced labour and cut materials costs while provided a higher quality reclosable pack using a peelable label.

"The flow-wrapped packs are tighter, easier for users to store and have a higher and more consistent seal quality for even



Tighter pack: Reed Shilling is now flow-wrapping its hygiene products

better hygiene," he says.

Supplied by UK representative Paramount Packaging Systems, the Fuji Alpha 6 machine is microprocessor controlled which, says Paramount, provides Reed Shilling Healthcare with flexibility for quick changeover between the various Oasis products and their different versions.

Speed is up to 70 packs a minute, with liquid added to the stacks of five, eight or ten dry pads immediately prior to wrapping.

The Fuji machine is also equipped with a pack reclosure

system that applies a low cost plastic peelable pressure-sensitive label over a die-cut aperture in the packaging film, providing easy-opening without scissors or knives. To reclose the pack, the label is wiped back into place, held by the peelable adhesive.

"We particularly liked the level of microprocessor control on the Fuji Alpha 6, which helps us achieve quick and easy changeover between the different pack formats," says Stephen Ley.

T: 01252 815252

E: fuji@paramount-packaging.co.uk

PACKAGING AUTOMATION

Sealer monitors seal force for medical device quality assurance

Packaging Automation has built a twin base rotary sealing machine equipped with seal force recording to close sterile blister packs for a major UK manufacturer of medical implants.

To ensure seal integrity, the machine uses a direct pressure transducer to record the seal force



Sealing force monitored: Tray sealer is equipped with pressure transducer

applied, so allowing any packs that fall outside the pre-set tolerances to be rejected. Sealing pressure is

adjusted automatically from the control panel.

A thermal printer is also incorporated to provide a permanent record of the force applied, seal time, number of packs sealed, temperature and tool code to allow full traceability.

The machine has two stations – one for loading and one for sealing – and has an automatic tool identification system which checks that the correct tool for the job has been installed.

T: 01565 755000

E: info@pal.co.uk

AETNA UK

Pallet wrappers protect furniture with payback in under 18 months

Four Robopac 506 PFS semi-automatic turntable pallet wrappers are now being used by Alston's Furniture, Ipswich, to protect items of furniture with bubble wrap and stretchfilm, replacing a largely manual operation.

Previously, items were wrapped by hand using a spinning turntable. This meant the operator was unable to prepare the next item for wrapping, which limited productivity.

The Robopac 506 PFS semi-automatic machines were supplied by Aetna UK with an optional Puriball feature which carries the bubble-wrap on a separate arm, allowing furniture to be wrapped using stretch film only or a combination of bubble-wrap and stretch film.

Products travel to the wrapping station from the production area via three motorised conveyors, feeding product at an average of 30 items an hour. The items are then loaded by hand from the conveyor onto the turntable and the wrap cycle begins. The end result is a securely wrapped product that is fully protected in storage or transit.

Following successful trials with an initial machine, three more were bought.

"Payback on investment was achieved in less than our 18 month target period," says Alston's transport manager Trevor Daldry. "And we have made significant savings in the cost of packaging materials, including a 50 per cent reduction in film usage, without compromising product protection."

T: 01234 825050

E: brendas@aetna.co.uk

WEBSTER GRIFFIN

Robot palletiser has easy-teach layer pattern programming

Minelco Specialities in Humberside has installed an Okura palletising robot from Webster Griffin to remove a bottleneck in production and meet growing demand for its Ultracarb calcium carbonate packed in 25kg paper sacks.



Automated palletising: Okura robot operates in tight space

For although Minelco's manufacturing process was able to keep pace with increased sales volumes, there is limited space at the end of the packing line where palletising was originally carried out by hand, 24 hours a day.

Following evaluation of various robots, an Okura A400 series III robot with the OXPA 'easy teach' programming system was selected. This has allowed new layer patterns to be created and existing patterns to be optimised to create symmetrical stacks.

Webster Griffin also supplied interconnecting conveyors with the existing sack filling machine and a long sack flattener to squeeze the bags into a tight block before palletising.

T: 01892 664250

E: info@webstergriffin.com

ISHIDA EUROPE

Walking beam system avoids risk of pot seal contamination

A walking beam transport system has been developed by Ishida Europe to work with its QX 775 tray sealer and avoid soup filled into single serve plastic pots slopping onto the seal area.

Installed at German food manufacturer Mico's plant in Saxony, the servo controlled system is handling up to 30 pots a minute, delivering empty containers to the filling position with the nozzles just above the pot rims.

In this position, filling with hot soup can take place with no spilling or splashing onto the rims, and hence risk of interfering with the sealing process.

The next movement of the walking beam system takes the filled pots to the tray sealer infeed, for presentation to the sealing tool. This is where the advantages of servo-control are most obvious, says Ishida.

"The pots can be lifted and moved forward at the same time, which in itself saves time. More importantly, the acceleration and



Avoiding seal contamination: Ishida walking beam transport for soup pots

deceleration of the movement can be programmed so that it takes place very smoothly, and as rapidly as possible, given the liquid nature of the product."

The QX 775 tray sealer employs an inside cut seal option, which cuts the film inside the perimeter of the pot flange to avoid excess

film overlap, while tooling for the pots also provides a peel-off easy-open tab.

Sealed pots exit the tray sealer and pass over an Ishida DACS checkweigher, followed by application of a board sleeve.

T: 0121 607 7700

E: info@ishidaeurope.com

THERMO ELECTRON CORP

Self-checking metal detector inspects grain at 12 tonnes/hour

Grain merchant and cereal processor Charles Jackson & Co has installed its second Goring Kerr DSP3 metal detector in a year at its plant in Northampton where the machine is now used to inspect up to 12 tonnes of grain an hour.

The metal detector incorporates the Goring Kerr AuditCheck device that automatically validates sensitivity by sending a regular test shuttle through the search head of



Monitoring grain: DSP3 machine handles up to 12 tonnes an hour

the machine and comparing the result to calibration data.

The operator can take immediate action if any deviation is reported, while changes caused by the product itself can be identified early for re-calibration.

"The Goring Kerr DSP3 metal

detector is easy to set-up and operate," says Charles Jackson, managing director at Charles Jackson & Co. "In particular, we like the AuditCheck function, which reduces workload and costs."

T: 01788 820300

E: sales.wi.uk@thermo.com



Handling bubble gum: Robots transfer rolls of gum onto product carriers

SCHUBERT UK

Robots load reels of bubble gum for Wrigleys

The Wrigley Company has automated the assembly of Hubba Bubba bubble gum tape into plastic dispenser shells with four Schubert TLM-F44 robotic systems installed at its Plymouth factory to replace a time-consuming, manual operation.

The neatly-coiled 80mm rolls of bubble gum are loaded onto product carriers at one end of the system by a series of four-axis pick-and-place robots which position the rolls in a specific orientation to ensure correct

insertion into the dispenser shells.

Simultaneously, half-opened plastic shells are fed from the other side of the system and placed into product carriers by robots fitted with special gripper tools.

Both infeed conveyors meet in the centre of the Schubert packaging system where the bubble gum rolls are pushed into the shells, which are then closed and placed in product carriers ready for labelling.

Any defective bubble gum rolls or plastic shells are identified by Schubert's vision system before they reach the packing operation and are deposited in collection bins at the end of the input conveyors.

T: 01676 525825

E: contact@schubert-uk.co.uk

BOSCH PACKAGING TECHNOLOGY

Wrapper works with pick-and-place to handle Delacre biscuits

United Biscuits has chosen a Tevopharm Pack 200 flow-wrapper with Demarex pick-and-place robot to handle Delacre brand biscuits.

The flow-wrapper is fed with biscuits by the Demarex Delphi pick-and-place unit and the

wrapped product then fed into a Demarex Presto dual collator, for loading into cartons.

With two independent collating chains, this latest version of the Demarex Top Loader is said to offer a much higher level of integration with merging of two separate flows, synchronised or not, now a standard feature, even with two different products.

T: 01332 626262

E: ukenquiries@boschpackaging.com

THE PPMA SHOW

"The complete production line event"

THIS YEAR'S PPMA MACHINERY ONLY SHOW TAKES PLACE IN HALL 5 OF THE NATIONAL EXHIBITION CENTRE, BIRMINGHAM, 26-28 SEPTEMBER. A SERIES OF NEW FEATURES INCLUDES A TECHNOLOGY CENTRE TO HELP VISITORS PLAN THEIR DAY, AN RFID SEMINAR PROGRAMME AND A SERIES OF BUSINESS ADVICE SEMINARS COVERING HUMAN RESOURCES AND TRAINING.



The PPMA Show: Visitor friendly with the accent on working demonstrations

Opening times:

Tuesday 26 September 10.00-5.00
Wednesday 27 September 10.00-5.00
Thursday 28 September 10.00-4.00
Car parking is free!

Processing and solids handling equipment

Exhibitors with processing or solids handling equipment are indicated by *

Can't find what you want? Need some help?

Then call at the PPMA stand (E70) where PPMA staff will help put you in touch with suppliers of the equipment you are seeking.

For further information and to register as a visitor go to www.ppmashow.co.uk

ACO PACKAGING

Stand D90

ACO Packaging specialises in semi-automatic and entry-level packaging machinery to automate manual operations.

Exhibits are taken from the company's range of fillers, cappers, labellers, and other packaging machinery for the cosmetics, chemical, petro-chemical, healthcare, toiletries, food and drink industries.

T: 01920 484050

E: nosborne@acosales.co.uk

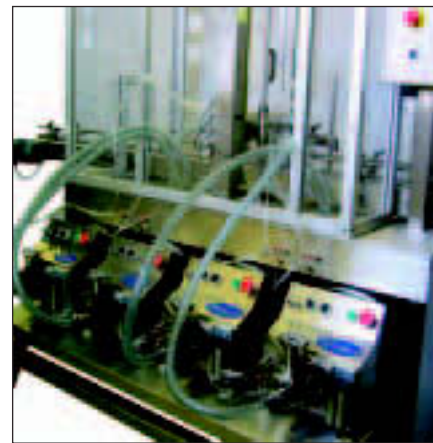
ADELPHI MANUFACTURING Co*

Stand D36

The Adelphi Response semi-automatic filling machine is shown in two formats: one filling liquids and the other creams. Accessories include the Adelphi Response system for automating up to four Response machines, and the Adelphi bag and pouch filling system.

There is also the Adelphi level filler, a bench-top machine that fills to a constant level to provide a consistent appearance when containers differ.

Further exhibits are the Adelphi peristaltic pump and XY distributor for automatic filling of small containers, the Adelphi bench-top pneumatic capper and a wide range of pharmaceutical laboratory and bench-top equipment for capsule filling, vial crimping, capping, inspection, ampoule sealing and tube sealing.



Adelphi: Response Automation System links four separate fillers

Examples from the Adelphi Coldstream range of pharmaceutical quality stainless steel products, including mixing and storage vessels, scoops and utensils can be seen.

T: 01444 472300

E: sales@adelphi.uk.com

ADPAK MACHINERY SYSTEMS

Stand E11

Shrink-wrapping equipment on display extends from L-sealers to automatic in-line systems while Adpak's new range of lid sealers, vacuum packers and thermoforming machines is on show for the first time.

There is also the BVM Compacta 5022 high speed trim sealer and Adpak's GSP 45E automatic flow-wrapper, available with both fixed and adjustable forming boxes.

Adpak's associate company Adpal is also on the stand, exhibiting a Kuka robot and a

ELAU. On the best machines

THE WORLD'S PACKAGING AUTOMATION SPECIALIST EXPANDS ITS UK PRESENCE

With the right technologies, skills and always supporting open architectures, ELAU has become the world's largest and fastest growing automation supplier for packaging machinery – and beyond.

With its expanding United Kingdom presence, ELAU is supporting both domestic machine builders and users of advanced packaging machinery. And for machine builders interested in export sales, there is no better automation partner worldwide.

New UK facility

ELAU Ltd in Milton Keynes, a central location in southern England, offers a fully equipped, modern training centre and has enough space for further expansion.

The training centre will benefit major ELAU end users in Great Britain, including GlaxoSmithKline and Unilever UK, along with OEMs such as Marden Edwards and Arcall Wright Pugson.

The facility supports a growing list of specifications for ELAU. For example, to simplify its FDA 21 CFR Part 11 compliance, GlaxoSmithKline has utilised PacDrive™ in every new machine from all its OEMs for the past three years.

Focused on packaging automation

In 1994 ELAU focused its resources exclusively on the automation of machines for the consumer packaged goods industries. With the introduction of its PacDrive automation system with integrated motion/logic control in 1998, ELAU set the world automation standard for machines in the consumer packaged goods industries.

Today, PacDrive automation systems control more than 30,000 of the best machines worldwide – with thousands of new installations every year.

Unparalleled domain expertise

Specialisation has proved a key factor in ELAU's success. This knowledge base enables ELAU to invest in and apply advanced technology with an unparalleled understanding of the market requirements in its domain, the consumer packaged goods industries. ELAU's application-specific skills and software infrastructure, along with optimised hardware and mechanical configurations, maximise the



ELAU PacDrive: Integrated motion and logic control for packaging

business value its customers derive from a PacDrive solution.

Global customer support

Thanks to ELAU's global application support, 24/7 service and logistical networks, machines with PacDrive can be readily commissioned and maintained anywhere in the world.

In 2005, ELAU AG joined the Schneider Electric Group, which provides assistance with global support and service. Since Schneider Electric has more than 85 000 employees and a service network in 130 countries, ELAU has the backing of a strong parent that will be giving the company systematic help in achieving the joint goal of becoming market leader in packaging automation.

Both companies share the common goal of world market leadership in packaging automation. ■

ELAU Ltd, Blackhill Drive, Wolverton Mill, Milton Keynes, MK12 5TS, UK.
Tel: 01908 628 014

www.elau.co.uk info@elau.co.uk

Simply integrated!

Multi Function, single control

At the end of 2005, ELAU AG presented the robot functionality of its PacDrive automation system, an innovation that reflects the trend towards integration of robot modules into packaging processes. Conventional robot systems predominantly use proprietary control architectures, which are tailored to the specific robots. However, using such controllers in the construction of packaging machinery results in a considerable workload to synchronize them with the packaging machine controller that automates the rest of the packaging process. With the high performance requirements in the consumer goods industry, this can cause problems with real time synchronization at the interfaces. With PacDrive™, ELAU now enables the packaging machine AND multiple robots to be automated using a single controller. ELAU AG has been nominated for the Automation Award for this functionality.

Ten products are nominated yearly during this exhibition for the so-called Automation Award – the "Oscar" of the German automation industry, so to speak. This Award is granted in cooperation with ZVEI (Central Association of the Electrical Industry) and VDMA (German Machine and Plant Construction Association) by the trade journal "Elektro Automation" for innovations in the sector of automation technology.



Mike Clarke: ELAU's UK sales director

semi-automatic pallet wrapping machine.

T: 01282 601444

E: info@adpak.co.uk

ADVANCED DYNAMICS

Stand F1

The Eurokett Mini-12 front and back labeller is shown with a top stabilising belt, chain aligner and finishing rollers for handling virtually any shape of package at speeds up to 300 items a minute.

Then there is the Kōra Packmat LB Feeder – capable of speeds up to 800 items a minute – shown with a Eurokett Vega labeller mounted over the extended vacuum belt outfeed, and the Kōra Packmat Universal friction feeder able to handle a variety of flat products.

Advanced Dynamics is also launching a new pre-made bagging machine for flat or three-dimensional products.

T: 01274 220300

E: info@advanceddynamics.co.uk

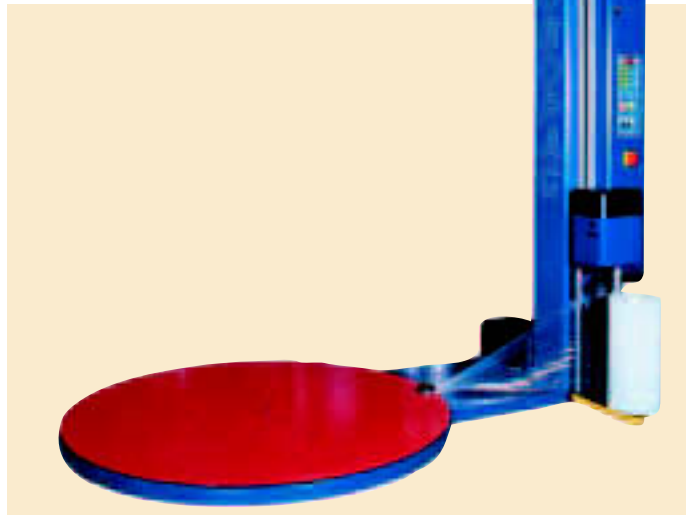
ADVANCED LABELLING SYSTEMS

Stand E31

All principal labelling applications and methods are on demonstration, including high-speed primary product labelling and outer case print-apply.

Also on show are industrial semi-automatic bench top dispensers, an on-line label inspection vision system and RFID-ready printers and applicators. The main methods of label application are demonstrated on a conveyor with multiple print-apply machines: wipe-on, air-blow, tamp-blow and front-of-pack.

Tandem-linked labellers demonstrate auto-changeover for applications that require continuous running while another is



Aetna: Robopac Rotoplat 506 semi-automatic pallet wrapper

under a water spray to show the effectiveness of the new IP65 protection kit available for the ALS Compact Class range of applicators.

T: 01844 213177

E: sales@als-eu.com

AEROTECH

Stand C86

The latest models from the Soloist motion control range, which incorporate both amplifier and controller in a single package, are on show.

This arrangement is said to produce one of the most versatile flexible single axis digital servo controllers on the market. Multi-axis networking can be achieved by the standard Ethernet connection while the unit is capable of controlling servo and stepper motors in rotary or linear form with no change of hardware.

The Soloist units are driving a series of linear motor actuators which, says Aerotech, demonstrates the speed, flexibility and accuracies of linear motors over ballscrews and belt drives.

T: 0118 940 9400

E: sales@aerotech.co.uk

AETNA UK

Stand G10

Pallet stretchwrappers on display extend from entry level machines to fully automatic high speed

AEW DELFORD SYSTEMS

Stand B61

Weighing, labelling and weigh-price labelling systems include the C3 panel label applicator which is able to apply a pressure-sensitive label around three sides of a tray or container.

It features powered side belts with a brush wiper assembly to ensure complete adhesion and can be fitted with a thermal transfer printer to add variable information, provided if required by a weighing unit.

The LS40 label applicator is a simple, low cost system that applies promotional and product description labels to the top and base of a retail pack at speeds up to 150 packs a minute.

There is also the 8060 weigh-price labeller suitable for a wide range of food applications, including meat, fish, poultry and cheese.

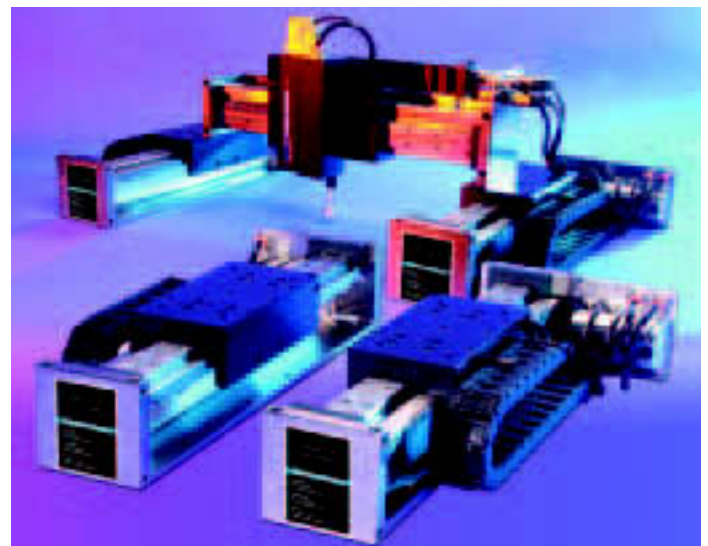
T: 01255 241000

E: harwich@aewdelford.com

ALLEN CODING SYSTEMS

Stand G76

Coding systems to be seen include Allen's Compact and Super Compact hot foil machines, the AllenCode NX2 and NX4 intermittent and continuous



Aerotech: Soloist motion control units are driving linear motor actuators





AEW Delford: C3 panel label applicator with integral weighing unit

thermal transfer machines, as well as the offline BDS and 4ACC intermittent carton coders.

The AllenCode NX intermittent and continuous thermal transfer coders are for high speed application of real time information, text codes, barcodes, Julian dates and graphics onto labels, cartons, film and other packaging materials. Both feature a self-levelling, quick-change print head.

The high performance Super Compact hot foil coder incorporates the latest digital technology and gives speed up to 800 impressions a minute.

For off-line duties, the Allen BDS intermittent carton coder handles cartons, sleeves, blister cards, leaflets and cut labels as well as complex pack designs. It offers a choice of hot foil or thermal transfer coding as well as a range of optional extras including multiple print heads, code readers, blob detectors, vision inspection and character readers.

T: 01707 379500

E: sales@allencoding.co.uk

ALL-FILL INTERNATIONAL

Stand C56

The AFI Series 100 single head in-line automatic auger filling system is on demonstration filling a fine, dusty non-free flowing food powder

into wide-mouth plastic pots, with container lift for bottom-up compressive dust-free filling.

Able to handle a wide variety of container shapes, from 15mm to 250mm wide or tall, the machine requires no size parts and is adjusted without tools.

Also shown are a selection of AFI Series 10 floor-standing pedestal semi-automatic fillers, including the high-performance servo-driven weigh filler able to handle non free-flowing powders such as talc and coffee powder or free-flowing granular products, such as salt and sugar.

Volumetric versions of the Series 10 filler with standard flux vector drive are shown as well as the AFI Series 1 Micro-filler, a servo-driven, ultra-high accuracy micro-doser.

T: 01767 69110

E: info@allfill.co.uk

ALLIED PHARMA MACHINERY

Stand G81

Exhibits cover equipment for case-packing, unscrambling, vial and capsule filling.

From Sotemapack comes the Bipack IS wraparound case and tray packer capable of handling standard trays, high wall or shelf ready trays, as well as full wrap-around cases, at speeds up to 18 to 20 a minute.



Allied Pharma Machinery: MAR rotary vial filling machine

Pace Packaging is showing the Omniline M500 plastic bottle unscrambler which is made in stainless steel and can be changed over by unskilled operators without tools in under 10 minutes.

There is also the MAR M53-2RL/IS/1A rotary vial filler, an intermittent machine able to fill, stopper and roll an aluminium seal in place at speeds up to 50 pieces a minute.

The machine feeds vials by a "comb" container transfer system, avoiding transport conveyors crossing the fill, stoppering and sealing areas, so reducing the potential for particulate contamination.

PAM Pharmaceuticals is showing the AF-40T automatic capsule filler, a compact machine offering speed up to 40,000 capsules an hour when filling powder and 35,000 capsules an hour when filling pellets.
T: 01252 356789
E: sales@alliedpharma.com

ALPMA (GB)*
Stand D86

Alpma's new overwrap system for triangular sandwiches is on display along with a video presentation of specialist machinery and also examples of the packs produced in paper, foil and composite materials with easy

open and reclosable features.

Also featured are examples from Alpma's range of cheese manufacturing equipment.
T: 01256 467177
E: sales@alpma.co.uk

AMASEC AIRFIL
Stand C21

The company's range of air pillow void fill and cushioning systems is on display.
T: 024 7636 7994
E: sales@airfil.com

ANCHOR PLASTICS MACHINERY
Stand C46

Anchor Plastics Machinery is UK and Irish agent for Koch blister packaging and cartoning machines and Kiefel thermoforming and welding equipment and is featuring machines from their ranges.
T: 01895 824301
E: info@anchor-pm.co.uk

ANDREWS AUTOMATION*
Stand F20

Andrews Automation is featuring materials handling equipment for unit loads, built by Q Transport-material, Denmark.
T: 08452 010626
E: sales@andrewsautomation.com

APPLICATION DEVELOPMENTS
Stand B30

Exhibits are taken from the company's range of labelling and product identification equipment, which includes printers, label applicators and print-apply machinery, together with the appropriate software.
T: 0118 974 7730
E: sales@adl.uk.com

ARODO UK
Stand B56

Automatic bagging, weighing and palletising equipment with capacities up to 2200 sacks an hour is being featured.

Latest machinery includes the Arovac vacuum bagging system which removes all air from the product, enabling it to be sealed within a plastic sack with no need for perforations.
T: 01634 672253
E: sales@arodo.co.uk

ASCO JOUCOMATIC
Stand G11

New grippers, pneumatic cylinders and valves are aimed at providing faster, simpler and improved automation of packaging and processing equipment.

They include the miniature MPG5 gripper for pick-and-place handling of small pieces, which can be mounted as an in-line series on a manifold with no space required for fittings or airlines, and the high-grip TJ series units.

There are also examples of the GeoMetric Series of pneumatic cylinders, which are said to be designed so that almost all competitors' current sensors and switches can be mounted easily in their dual switch/sensor grooves.
T: 01695 713600
E: marketing@ascojoucomatic.co.uk

ASTEC CONVEYORS
Stand F10

Specialist pack handling units include a spiral conveyor and Astec's automatic route Channeliser.

The company's range of spiral conveyors provide continuous vertical transfer of product in either direction and are designed in such a way that the slat chain arrangement can be extended and used as a flexible conveyor outside the spiral. Units can also be configured to provide intermediate storage or a buffer between processing or packaging equipment.



Astec Conveyors: Spiral conveyor can also act as a buffer store

The Channeliser routes products from a single lane into multiple lanes at high speed – with route selection typically by weight, height, or bar code – and, vice versa, from multiple lanes into a single file.

Details are also available on custom pack orientation systems built by Astec, as well as a wide range of conveyors.

T: 01283 210333

E: sales@astecconveyors.com

AT SACK FILLERS

Stand G30

Exhibits are taken from the company's range of automatic powder and granule weighing and filling machines which includes both electronic and mechanical models.

Capacities extend from 20g to 50kg for dosing most types of packaging in industries that include food, pet care, chemicals, aggregate, refractory materials and horticulture.

Automatic filling machines are available for Atex zoned areas.

T: 01487 711114

E: sales@simplafillsystems.co.uk

ATWELL SELF-ADHESIVE LABELLERS

Stand E16

Two Matrix IP65 rated pressure-sensitive labellers are being introduced – an in-line head on a stainless steel movable pedestal stand and a cross web machine, said to be the fastest available in the UK.

Further labellers on show are a fully automatic wraparound unit incorporating a programmable AL2-120S stepper driven label head and a fully automatic Tri-Roller system. This has a programmable AL120-S stepper driven label head fitted with a hot foil coder.

There is also a fully automatic top and bottom labelling system, a series of Atwell labellers fitted with a variety of in-line hot foil and



Automated Packaging Systems: New FAS SPrint bagging system

thermal transfer printers, and a Sato desktop RFID printer.

T: 01342 844146

E: sales@atwell-labellers.co.uk

AUTOBOX

Stand C115

Short-run corrugated box-making machines from Autobox are able to produce cases of virtually any size on demand, so reducing inventory, storage space required and also the cost of the containers themselves.

T: 01525 379359

E: sales@autobox.co.uk

AUTOMAC (UK)

Stand E15

New for the show is the the Gruppo Fabbri TopLid modified atmosphere packaging system for meat and fresh produce, which employs a new heat seal system, a specially developed high barrier lidding film and barrier trays.

The new high barrier Pelid film is said to combine brightness, clarity and anti-fog properties with an extremely low gauge that provides considerable savings on the pack cost.

T: 01606 831113

E: automacuk@gruppofabbri.com

AUTOMATED PACKAGING SYSTEMS

Stand F131

Automated Packaging Systems is launching its new FAS SPrint bagging system particularly for the food industry and other packing environments that require daily washdown procedures.

The system can operate at speeds up to 120 bags a minute in continuous mode, presenting a conveyor of pre-opened bags ready for loading. It can be integrated with a variety of automatic infeed systems for semi to fully-automatic packing of portion or bulk packs.

“Research has shown that FAS SPrint will help reduce labour

costs by increasing productivity per operator up to eight times more than most manual load operations,” says Paul Hayden, marketing manager at Automated Packaging Systems.

Further exhibits include established bag-on-reel Autobag bagging systems and the Airpouch void-filling system, which provides protective air-filled cushions at the rate of 15 metres a minute.

T: 01684 891400

E: contact@autobag.co.uk

AVE INDUSTRIES

Stand C31

The Ave NH iso 40-40-8 filler-capper is shown set up to handle PET bottles via a neck handling transport system.

The machine is capable of filling a variety of soft drinks and beverages, using the counter-pressure method, while the capper is set up to apply plastic caps using a pick-and-place system.

Details are also available on further Ave equipment which includes unscramblers, depalletisers, air cleaners, bottle rinsers, cappers, labellers, shrink-wrappers, case erectors, pick-and-place packers, palletisers and pallet wrappers.

T: 01252 733200

E: sales@aveuk.net



Atwell Labellers: Tri-Roller applicator for cylindrical products



BBK Labelling and Coding: Print-apply for adjacent side case coding

AVERY DENNISON FASTENER EUROPE

Stand D131

Plastic fastener and packaging systems include the Variable Needle System which allows products such as toys, cosmetics, tools and kitchen accessories – often displayed in blisters and clamshell packs, or secured by twist and cable ties – to be attached to backing cards with clear polymer staples.

Manually operated, it uses two needles to punch small holes in the backing card on either side of the product, simultaneously feeding an elastic staple through the needles and toggling the ends behind the card.

T: 01628 859571

E: fast.info@

eu.averydennison.com

BALLUFF

Stand C40

Balluff's latest range of BWL one-piece "plug and play" through-beam sensors feature pre-aligned optics to allow fast, accurate installation with no need for special brackets or complex beam alignment procedures.

Virtually any target can be detected, regardless of colour, shape or reflectivity.

Applications include gripper

positioning, parts ejection, pallet transfer and pick-and-place machinery.

T: 0161 437 1234

E: sales@balluff.co.uk

BBK LABELLING AND CODING SOLUTIONS

Stand F66

A new high-speed servo driven pressure-sensitive labelling machine capable of 130 metres a minute is being launched on the UK market.

There is also a new print-apply machine that provides adjacent side coding with a bar coded label wrapped around the case corner. It can also be employed for side labelling only.

T: 01628 473670

E: sales@bbk-labelling.co.uk

JOHN R BOONE*

Stand G17

Laboratory and demonstration models from the company's range of mixers are on show – rotary drum blenders and helical blade and plough type mixers which are available to handle batches of 2-25,000 litres and for continuous production up to 250 tonnes/hour.

Applications for the rotary drum blenders include tea, floor screed, muesli, rice flakes, confectionery, gelatine and frozen vegetables while helical blade versions are employed on tile adhesive paste, batter mixes, spices and flavours, meat mixes, breakfast cereals prior to extrusion, toiletry preparations and for drying applications under vacuum.

Plough type mixers are used for cookies, dry mortar, brown sugar, sports field top soil and for adding minor liquid additions to powders without agglomeration.

T: 01260 272894

E: sales@jrboone.com

BOSCH PACKAGING SERVICES

Stand C70

Bosch is putting its new entry level flow-wrapper, capable of speeds up to 250 a minute, on show for the first time in the UK.

Servo driven, the machine is said to be competitively priced, use

fewer parts than usual and require less than five minutes for a size change.

It is shown being fed by the Demarex Presto robot.

T: 01332 626262

E: ukenquiries@boschpackaging.com

BRADMAN LAKE GROUP

Stand E51

Bradman Lake is concentrating on the group's capacity to provide integrated packaging lines from a single source, with Autowrappers flow and roll wrappers, Bradman Lake end-load and robotic top-load cartoners, Albro fillers and Europack end-of-line shrink-wrappers and case-packers.

T: 0117 971 5228

E: cartoningsales@bradmanlake.com

BRAMIGK & Co

Stand E116

Bramigk & Co is exhibiting with principals Laudenberg and Somic.

Laudenberg manufactures a range of horizontal form-fill-seal machines for producing a variety of pouch shapes, styles and sizes. Somic builds end-of-line packaging equipment to handle pouches, blisters, cartons and so forth.

T: 01245 477616

E: info@bramigk.co.uk

BRITISH BOTTLERS' INSTITUTE

Stand B120

The BBI provides a forum for those concerned with bottling, canning and packaging of beverages and other products, enabling them to pool their experience and to discuss issues relating to plant, equipment, containers, closures and materials.

The institute also sponsors and organises conferences, seminars, meetings, and visits.

T: 0776 1005276

E: secretary@bbi.org.uk



Bosch Packaging: Introducing a new entry-level flow-wrapper

CAMPAK

Stand D100

The CAM nMX blister packer and PMX cartoner are on show in the UK for the first time.

Built on a balcony basis, the nMX blister packer can handle a broad range of forming and lidding materials and incorporates a splice table at work level height so that changeover can be carried out in a few seconds.

The range of feeders is said to allow the machine to handle hard or soft gelatine capsules, round and oval dragees, and coated or uncoated tablets of any shape and in any presentation.

The PMX intermittent end-load cartoner is also a balcony machine which, like the nMX blister packer, offers complete separation of drives and other mechanical parts from the packing area, to simplify cleaning and inspection.

T: 01536 261501

E: sales@campak.freemove.co.uk

CAP CODER

Stand D60

Latest capping equipment from Cap Coder includes the Tri-Torque head which employs three rubber-lined gripping fingers capable of reaching over a variety of cap shapes before closing on the cap.

Shapes that can be handled include oval perfume bottle caps, tamper evident caps, flip-tops and spray nozzles. Servo motor drive allows torque and speed to be accurately controlled.

Further exhibits are the cc560 Starwheel rotary table capping machine with twin capping head arrangement and the Gentle Touch contact ink coder.

T: 01865 891466

E: sales@capcoder.co.uk

CERMEX UK

Stand D96

Cermex is launching a new side-load case-packer in the UK, developed to meet demands for



Cermex: First appearance for the new SB27 side-load case packer

easy access and increasingly strict hygiene.

Built on a balcony basis, the SB27 offers direct ground level access into the heart of the machine and is said to provide simplified format changeovers and easy loading of the case blank magazine.

Product collation is by established Cermex elevator or lowerator designs while a retractable loading funnel is used to ensure unimpeded transition of the collation into the case.

Principal markets are seen in the food industry as well as pharmaceuticals and cosmetics.

T: 01480 455919

E: sales@cermexuk.com

CLAN PACKAGING

Stand B70

Two sachet machines from Universal-Pack, Italy, are on display: the Beta intermittent motion machine for wet wipes and toiletry products – available in either shaped or four-side-seal format – and the NVP4 high speed four lane machine for powders and granules.

From Miele, Italy, comes the Lira entry level vertical form-fill-seal machine.

T: 01628 630111

E: sales@uniclan.co.uk

CLIFTON PACKAGING*

Stand G40

Clifton specialises in food processing and packaging machinery and is showing a representative sample of its range.

This includes flow-wrappers, multihead weighers, auger fillers, vibratory feeders, bucket elevators, inclined screw feeders, checkweighers, metal detectors and compact pick-and-place systems operating at speeds up to 100 packs a minute.

T: 0116 289 3355

E: info@cliftonpackaging.co.uk

COBALT IS AUTO ID

Stand D11

The Cobalt Sentinel line set-up and verification system automates the task of ensuring that outer packaging matches the contents, eliminating risk of operator error.

Using biometric authentication and authorised access controls, 'use by' dates and labelling data is entered once.

The data is then passed to coding, labelling, weigh scale and other line equipment to complete the set-up.

The Sentinel system is said to be sufficiently flexible to cope with short run products, variable code positions and generic contents labelling.

T: 01606 42500

E: sales@cobaltis.co.uk

CLARICOM

Stand F111

Exhibiting with Interactive Coding Equipment (ICE), Claricom is featuring the latest versions of its Package Coding Management Software.

CLARISOFT V4.309 now includes drivers for the Hitachi PX-DE continuous ink jet coders and the new range of print-apply labelling machines from ICE.

It also now includes extended fully automatic international date language support and new user interface languages for coding exports, as well as support for the latest Datamatrix 2D codes.

T: 0115 955 5153

E: sales@claricom.co.uk



Claricom: Latest versions of the Package Coding Management software



Constant Instruments: Pharmaceutical metal detector from Ceia

CODEWAY

Stand F26

Codeway is exhibiting a number of labelling systems from its range, which extends from low cost desktop printers through to fully automatic machinery, such as the new generation Avery Dennison print-apply machines, which are protected to IP65 and RFID ready.

Tracking and tracing systems from Codeway include bar coding, 2D coding and portable data capture using bluetooth, GPS/GPRS and radios.

T: 01206 751300

E: identify@codeway.com

CONSTANT INSTRUMENTS

Stand F60

Latest additions to the range of metal detectors from Ceia, Italy, include a 21 CFR part 11 and CFR Parts 210 and 211 compliant pharmaceutical system, the THS/PH21-FFV for powder and granule inspection.

Constant Instruments says the system has been developed with extremely high detection sensitivity towards tiny ferrous,

non-ferrous and stainless steel metal contaminates.

Contaminated products are automatically rejected via the one piece moulded stainless steel 316 rejection system which features a high speed deflector able to operate under high production flow rates.

T: 01903 739333

E: sales@constant-ceia.com

CONTROL TECHNIQUES

Stand C45

The extended range of Commander SK drives and the Unidrive SP AC drives in sizes of 0.75 kW up to 1.5 mW are on show. New on-board plc capabilities that can increase performance of intelligent drives by 150 per cent are being demonstrated.

The Unidrive SP drive range is said to offer a high level of flexibility and performance that makes it particularly suited to process and packaging machinery. Developments include Ethernet technology and the SM-Applications Plus module, which gives greater processing power and improved diagnostics.

The Commander SK drive is

now available from 0.25 kW up to 132 kW. Across the complete range the footprint and volume of each drive is claimed to be up to one third smaller than competitive products.

T: 01952 213700

E: uksales@controltechniques.com

CONVEYOR SYSTEMS

Stand F56

The twin lane Spiralveyor being launched by Conveyor Systems provides twin, independently driven feeds, such as to a palletiser, and is particularly suited to dual high speed packaging lines.

Also, if buffer accumulation is required, product can be fed up the inside lane, looped back onto the outside lane at high level, and returned back down onto the main line without the need for sophisticated transfers.

Lane configuration can be 2 x 200mm, 2 x 400mm or 1 x 200mm and 1 x 600mm on the same machine. Three x 200mm lanes can also be selected.

Further exhibits are taken from Conveyor Systems' new range of flexible conveyers – including curves, inclines and straight sections – in widths up to 600mm, and a range of powered roller conveyors in mild and stainless steel for handling cartons, cases, shrink-wrapped packs, tote bins, boxes, dollies and pallets.

T: 01283 552255

E: sales@conveyorsystemsltd.co.uk

CORNWELL PRODUCTS MACHINERY SALES

Stand C95

On show is a pick-and-place system, based on Flexpicker robots, built by German manufacturer Loesch for loading various items into trays.

Information is available on further Loesch equipment for the food industry including fold wrapping and feeding machines for



Conveyor Systems: New twin lane Spiralveyor

chocolate bars and biscuits; high-speed pick-and-place robots with vision systems for assortment packing or tray filling; tray loading machines for biscuits; overwrapping machines and display cartoning machines.

T: 01732 866677

E: info@cornpro.com

CREMER SPECIAL MACHINES

Stand F76

Cremer builds product counting machines for a wide range of industries including food, confectionery, frozen products and pharmaceutical and is demonstrating its CF1220 multi-channel tablet and capsule counter.

Typically, a single head CF1220 has an output of around 55 containers a minute on a 100 count and there are double and quad versions for nominal outputs of around 100 and 250 discharges a minute.

Electronic controls include a touch screen terminal and, in line with FDA 21 CFR part 11, paperless electronic records and signatures.

T: 01276 35053

E: sales.uk@cremer.com

D2 FOOD SYSTEMS

Stand B90

Sleeving, tray sealing and case packing equipment for ready meals includes the new compact D2100 PGS pre-glued sleever capable of handling up to 60 single portion packs a minute.

There is also the new generation Ulma Scorpius 600 S tray heat sealer, suitable for modified atmosphere packaging, offering speed up to 60 packs a minute and a die set area of 600 x 300mm.

The CombiPPAC case and tray packer and the recently launched low cost Vortex S cook, quench and chill system are featured as well.

A compact system, the Vortex S



D2 Food Systems: Vortex basket system for cooking and chilling

delivers cooked rice or pasta at temperatures less than 5deg C, allowing the product to be moved straight to ready meals processing and packaging lines.

T: 01582 622111

E: sales@d2foodsystems.com

DAN-PALLETISER

Stand D76

Dan-Palletiser is highlighting its product development programme and new approaches across its product range, which consists of palletisers, depalletisers, pack conveyors and pallet conveyors.

T: +45 5838 2193

E: sales@dan-palletiser.dk

DOMINO UK

Stand E30

Domino is launching a range of ink jet printers said to offer new technology, greater database connectivity, an open interface and enhanced software capabilities.

There is also a demonstration of the company's new traceability system. This involves coding each product with a Data Matrix number, which is authenticated and validated on-line.

Further exhibits are taken from Domino's established range of laser coding and ink jet printing systems, including a twin head high-resolution C-Series large character ink jet and the A200 continuous ink jet capable of printing up to four lines of text.

T: 01954 782551

E: enquiries@domino-uk.com

DOMNICK HUNTER

Stand G53

The Maxigas system generates food grade nitrogen from compressed air, allowing users to make their own inert gas for modified atmosphere packaging and other processes in the food, beverage and pharmaceutical industries at lower cost than traditional methods of supply.

Manufacturer Domnick Hunter says the system is more cost effective than cylinders or liquefied gas tanks, which need careful storage and handling.

T: 0191 402 9000

E: gasgen@domnickhunter.com

DURHAM DUPLEX

Stand G84

Durham Duplex manufactures machine knives and industrial razor blades and is exhibiting examples from its range, including toothform, straight and circular versions as well as specials.

T: 0114 243 2313

E: sales@durham-duplex.co.uk

EASIWEIGH

Stand E90

An entry-level weighing system developed for small, start-up and low volume producers is one of two new weighers being introduced by Easiweigh.

Based on the recently introduced Midilite linear weigher, the Midilite Plus features the stainless steel, compact weigher, a parallel integrated filling station and a bag sealing machine, providing a complete system capable of handling a wide range of products at average or minimum weight settings, up to a maximum of 2kg.

The second new machine is the Easiweigh DRP 1010 high speed linear weigher aimed at a wide range of food products, frozen or dry, and capable of running at 70 drops a minute.

T: 01905 28075

E: sales@easiweigh.co.uk



Endoline Machinery: Compact 221 case erector

EASYPAK

Stand G140

A turntable pallet stretchwrapper that sells for £1999 is being launched by Easypak as a cost effective alternative to wrapping by hand.

PLC controlled, the Easypak 200 offers a powered carriage and, says the company, is able to reduce the cost of wrapping through a direct reduction in film costs as well as more stable loads that result in less product damage.

Also featured are further pallet wrappers from the Easypak range as well as strapping and case sealing machinery.

T: 01823 339600

E: sales@easypak.co.uk

ELAU

Stand D57

Automation technology specialist Elau is focusing on three sectors of packaging and processing machinery where its systems are employed.

In slicing and portion control equipment using optical weighing

techniques Elau is demonstrating how vision technology integrated into the machine control system can provide increased production rates and constant pack weights in process grading, as well as higher production line flexibility.

For robotic handling and assembly of food, reducing labour costs, Elau has introduced specific software libraries for its PacDrive



Domnick Hunter: Maxigas generates nitrogen from compressed air

system to control all robot mechanics from simple Cartesian to the more complex Delta 3 Flexpicker style, with integrated vision technology.

In filling, capping and labelling Elau is demonstrating hardware specifically designed to provide extra flexibility, including the compact SCL Servo system which provides accurate labelling and capping with press-button format change.

T: 01908 628014

E: info@elau.co.uk

ELECTRIX INTERNATIONAL

Stand B20

Electrix makes and stocks stainless steel cable management systems and is putting a selection on display.

T: 01388 774455

E: enquiries@electrix.co.uk

ENDOLINE MACHINERY

Stand C85

Endoline and Quin Systems have set up a new partnership to supply complete high-speed case-packing lines, combining Quin's high-speed pick-and-place machines with Endoline's expertise in case erecting and sealing machinery.

A typical example on show is the Endoline 221 case erector, which combines a compact footprint, clear access and a dual opposing vacuum opening mechanism to ensure maximum reliability and efficiency. Once the cases are erected, Endoline and Quin can now offer case packing systems operating at rates up to 100 case layers a minute.

For other applications, Endoline offers its 310 Series of modular pick-and-place case and tray-packing machines designed to improve levels of automation and efficiency at lower speeds, particularly for first time users of automatic machinery of this type.

T: 01767 316422

E: sales@endoline.co.uk



Euroflow Engineering: Stainless steel tray denester

EUROFLOW ENGINEERING

Stand D1

Euroflow builds stainless steel equipment for the food industry and is showing a pick-and-place unit, an adjustable tray denester, a foil tray denester, a transfer pump and a rotary table.

Information is available on further equipment built by the company, which includes lid placers and presses, labelling systems and conveyors of various types such as elevators and indexing units as well as bespoke systems.

T: 01205 357887

E: info@euroflow.com

EXCEL PACKAGING MACHINERY

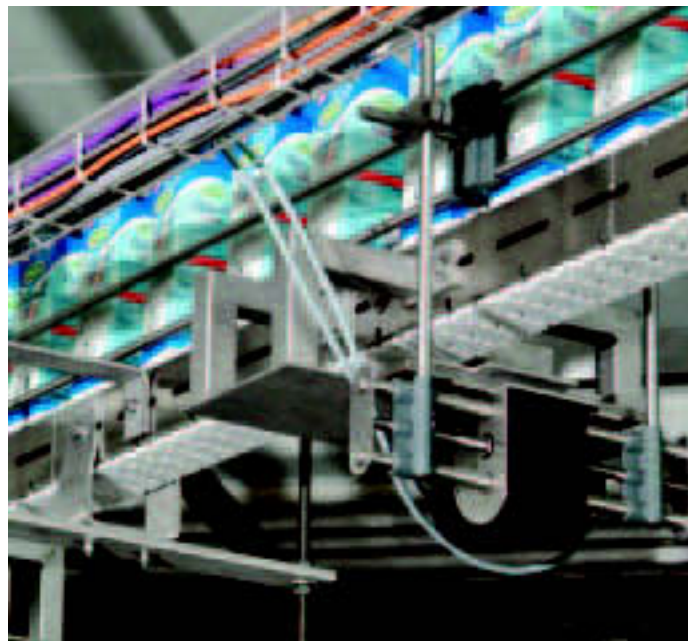
Stand B51

On show for the first time is the Italian built Pentavac Penta 2100 stainless steel vertical form-fill-seal machine and the latest version of the Optima 700 semi-automatic tube filler from Italian manufacturer Axomatic.



The Penta 2100 provides bags 50-290mm wide at speeds up to 45 a minute when working with polyethylene and bags 60-500mm wide in laminate film at speeds up to 60 a minute. The Optima 700 tube filler – designed for contract packers – handles metal, plastic, laminated and polyfoil tubes at speeds up to 1200 an hour.

From Omas Tecnosistemi comes the Mini monobloc filler-capper for use on small batches in the cosmetics, pharmaceutical and particularly aromatherapy and fragrance industries.



FlexLink Systems: Automatic Guiding System resets width of conveyor guides

Marin, also of Italy, has recently introduced in-line flow meter filling machines in four, six and eight head versions. On display is the company's twin head 1 litre filler, the PN-2, as well as the R-12 rotary gravity fed filler.

T: 01865 400489

E: info@excel-packagingmachinery.com

FARLEYGREENE*

Stand C120

Sieving equipment specialist Farleygreene is introducing its new sack-tipping station which includes the Slimline vibratory check sieve in a new dust containing station.

Also to be seen is the Sievmaster 700 machine and Farleygreene's smallest sieve, the 500-S, which provides typical users such as bakers and research kitchens with an affordable mobile sieve unit.

T: 01252 322 233

E: sales@farleygreene.com

FISCHBEIN-SAXON

Stand C91

Open mouth bag sealing systems are on display, including the new Saxon SB1000 heat sealer with increased heating performance of 1kW, a new trimmer and an

airwash system to clean the mouth of the bag and avoid dust in the seal area.

For sewing bag tops there is the portable Model F with crepe paper attachment to produce a sift-proof closure and the MUA system, equipped with an infeed arrangement to bring the bag automatically into the sewing head, and a crepe paper feeder.

Glue closure systems are represented by the PBC 6000 to close pinch-type pre-glued multi-layer paper bags while for heat sealing there is a new generation of heavy duty manually-operated tools.

T: 0870 160 9314

E: sales@fischbein-saxon.co.uk

FLEXLINK SYSTEMS

Stand D70

On demonstration is a handling system suitable for multiple products, incorporating FlexLink's classic range of conveyors, as well as accumulation and elevating systems, a second generation Hygienic System and the new Automatic Guiding System.

This is an automatic system to reset conveyor guides when product dimensions alter and is said to give a payback time of less than a month if resetting is required five times or more a week.

"The system makes efficient multi-product manufacturing lines a reality as frequent product changes are commonplace in industry today," states the company.

"Automatic resetting of the lines promotes small batch production and increased line utilisation."

T: 01908 327200

E: info.uk@flexlink.com

FLEXON

Stand E95

Featuring the range of Elite chains designed specifically for packaging machinery.

T: 0121 521 3600

E: sales@flexon.co.uk

Focke & Co

Stand E86

The new pick-and-place handling system demonstrated by Focke can be used as a grouping unit or for loading cases and is available as a standalone unit or integrated with a case-packing machine.

There are three different types, giving speeds up to 60 picks a minute.

Information is also available on the full Focke range of end-of-line packaging equipment including side load case packers for up to 24 cases a minute, wraparound case and tray packers with or without lid applicator for up to 30 cases a minute, top load case packers for up to 30 cases a minute and robotic palletising systems.

T: 01483 756094

E: fockeuk@btconnect.com



Focke & Co: Introducing a new pick-and-place system

temporary attraction and product adhesion on plastic bag lines, and in shrink wrapping, interleaving and winding processes.

T: 01398-331114

E: sales@fraser-antistatic.co.uk

with attached counter, as well as the Moonlight flow-wrapper.

Products being handled by these two machines include nuts, bolts, screws, dog treats and plastic vials, together with other non-food and domestic items.

Two Beck Packautomaten wrappers – one with a shrink tunnel – are on demonstration handling a variety of items including books, magazines, food tins, and plastic bottles.

T: 01442 206100

E: info@friedheim.co.uk.

FORTRESS TECHNOLOGY (EUROPE)

Stand G26

Metal detectors are on display for both in-process and end-of-line applications and are available with the Contact data collection package, which runs over a wireless Ethernet network.

This event logging and data collection system operates with an unlimited number of machines, providing records for quality assurance and maintenance.

T: 01295 256266

E: europe@

fortresstechnology.com

T FREEMANTLE

Stand D10

Freemantle is launching its latest cartoner, an automatic end-load machine with a slimline autoloader and an integral transfer system to load product into the infeed.

The system operates at speeds up to 150 a minute and will accept product at random for feeding into the cartoner.

A standard, rather than bespoke system, the product transfer arrangement is said to give the benefits of a more simplified mechanical and control system, smaller footprint, lower build cost and greater efficiency.

The system also incorporates an element of accumulation to accommodate a short stoppage by the cartoner.

T: 01724 276908

E: sales@tfreemantle.com

FRASER ANTI-STATIC TECHNIQUES

Stand B36

The new compact 5000 ionised airknives are airflow amplifiers which produce a high speed beam of ionised air for cleaning dust from bottles and mouldings, opening bags or for long range static neutralisation. They are available in lengths from 75mm upwards.

Also new is the 7300 static generation system to provide

FRIEDHEIM INTERNATIONAL

Stand C110

From Italian manufacturer Imanpack comes the Microvert vertical form-fill-seal machine

GAINSBOROUGH ENGINEERING Co

Stand D25

The entry level GV2k1 vertical form fill-seal machine is on demonstration operating with two linear weighers as a weigh-pack combination.

Developed to provide a cost effective solution the weigh and bag system can run at speeds up to 40 packs a minute producing bags from 50mm up to 200mm wide in heat seal materials or polyethylene.

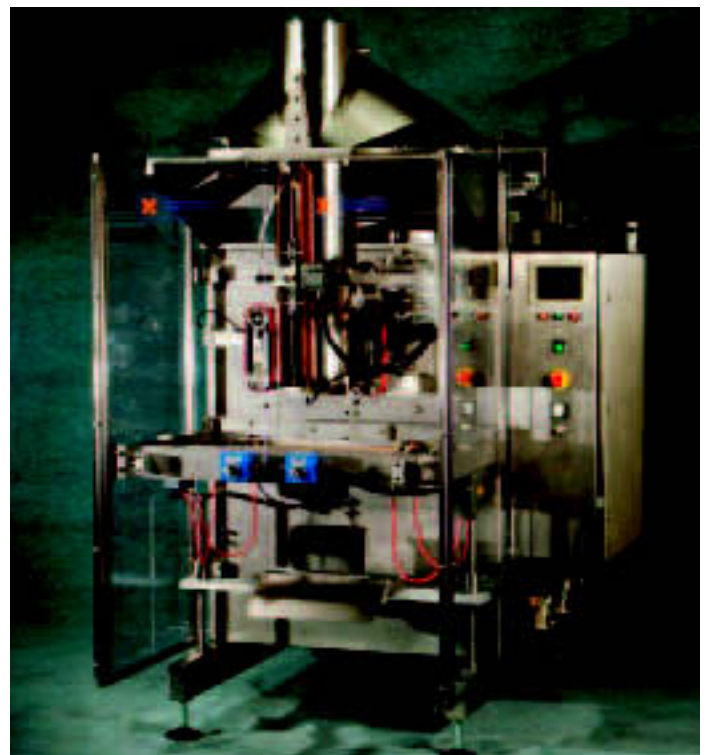
The high speed stainless steel version of this machine, the GV2k2, with servo drive and capable of over 100 packs a minute, is also on display along with the stainless steel washdown version of the GV4.

This machine has been designed for food processors requiring a large bag, typically 2 -15kg, for goods such as cheese, sauces, frozen meats, and prepared produce.

A fourth bagging machine on show is the Gainsborough GV2k3.

T: 01427 617677

E: sales@gains-eng.co.uk



Gainsborough Engineering: Stainless steel GV4 bagger for bigger packs



Guttridge Services: Bulkflo loading hopper with extraction to handle garlic

GOLCONDA
Stand C36

Golconda designs and builds process control equipment for all industries and is also featuring equipment from Italian manufacturers Concetti and Technowrapp.

Concetti makes weighing, bagging and palletising equipment while Technowrapp manufactures pallet wrapping machines.

Golconda also supplies a range of level control sensors.

T: 01159 771101
E: graham.footitt@golconda.co.uk

GROTE COMPANY
Stand B45

An enhanced version of the Peppamatic machine, developed originally by Ohio pizza maker Jim Grote to slice and apply pepperoni automatically onto pizza, is being introduced.

The machine, which offers an increase of up to 25 per cent in output, is electrically driven and has the same footprint of many

older hydraulic Peppamatic models. The open, stainless steel frame is said to give greatly improved hygiene.

Also on the stand is a 530E slicer-applicator, which can slice and apply product to moving targets – such as buns, trays, pizza crusts and oven belts – in a single, automatic operation. Production rates are adjustable, up to 176 strokes a minute in bulk slice mode, multiplied by the number of lanes being sliced.

In addition to targeting, Grote slicer-applicators are also able to bulk slice, stack, and shingle into portions.

T: 01978 362243
E: sales@intl.grotecompany.com

GUTTRIDGE SERVICES*
Stand G13

Bulk powder handling specialist Guttridge is to unveil a number of product improvements.

Exhibits are taken from the company's range of bulk bag dischargers and fillers, mobile hopper loaders, inline check-sieves, weighing systems, valves and other machinery that allows custom solutions to be provided. Applications cover fine, free flowing powders, granules, flakes and pellets, but also difficult materials with poor flow characteristics.

Also on show is the Virolat non-blinding vibratory sieve separator, said to improve sieve performance by a substantial amount.

T: 01775 765300
E: sales@guttridge.co.uk

HALO TRAINING
Stand E125

Halo's On Demand Training (ODT) package for production and maintenance staff is on demonstration for the first time and is said to offer a wide range of

benefits including reduced costs and significantly improved operating efficiencies.

A bespoke system, ODT uses multimedia technology to teach machine operators, maintenance staff, supervisors and other production staff about manufacturing processes, and how to operate and maintain machines safely and easily.

Each ODT package incorporates animation, video and audio material to help demonstrate machinery operating functions and procedures – for example, cleaning and maintenance, troubleshooting and health and safety issues.

T: 01635 201768
E: enquiries@halotraining.co.uk

HAPA-LAETUS
Stand E106

On-line pack printing specialist Hapa and pharmaceutical packaging security equipment supplier Laetus were bought earlier this year from Romaco by Coesia of Bologna, and are represented at this year's PPMA Show by their new UK sales arm, Hapa-Laetus UK.

Hapa is featuring its 729 digital printer aimed at increasing efficiency, particularly in those pharmaceutical industry environments where small and micro-batches or late stage customisation are the norm. The need for pre-printed foil can be largely eliminated, so reducing costs and stockholding while new data can be set up and printed with minimum downtime.

Laetus is showing its IVT system, developed to prevent pharmaceutical counterfeiting and to improve supply chain security right to the end user through tracking every product via unique identification labels or codes.

In addition, a combination of the Laetus BCAM verification camera system, the Garvens S2 checkweigher from Mettler-Toledo and a Domino laser provides a



Halo Training: Multimedia package for operators and maintenance staff

complete turnkey marking and overprint verification system.
 T: 01480 414242
 E: paul.osborne@hapa.laetus.com

HARLAND MACHINE SYSTEMS

Stand B21

Harland is launching the next generation of its Sirius pressure-sensitive labeller, said to incorporate a number of improvements.

In particular, the machine's new motion control system provides increased labelling accuracy coupled with absolute speed matching to cope with variable speed demands on packaging lines.

There is also an enhanced control system incorporating a touch screen, a high level of user diagnostics and software that enables quick product changeover and is self monitoring to provide optimum reliability.

Fully integrated inspection systems identify label and or overprint presence while bar code scanners to check legibility can be readily incorporated. An integrated vision system to identify label position and check lot or expiry date codes is also available.
 T: 0161 848 4800
 E: enquiries@harland-hms.com

HERMA UK

Stand F36

Celebrating its centenary this year, Herma is demonstrating the 132M wraparound pressure-sensitive



Herma UK: Demonstrating the 132M wraparound labeller

labelling machine.

Based on a continuously rotating star wheel the machine is capable of speeds up to 400 items a minute.

Accessories include low and end-of-reel detection systems along with print and pharmaceutical code control.

T: 01440 763366
 E: sales@herma.co.uk

HI-TECH MACHINERY

Stand F45

Hi-Tech Machinery specialises in equipment for precision filling of liquid, cream, gel, suspensions and solutions into sachets, jars, bottles, blister packs, cans and similar containers, both stable and unstable.

Pumps from the Hibar range are

able to dispense volumes from 0.001ml upwards and are installed as filling modules on new and existing equipment or in single 'pump on a stand' format for small scale production or R&D applications.

Where higher outputs are required, fully automatic continuous or intermittent motion filling machines are available, operating in six, eight, ten and other multihead configurations.

T: 01256 766003
 E: sales@fillers.co.uk

HOLMES MANN & Co

Stand G38

A main distributor of Siat machinery for case sealing and stretch-wrapping, Holmes Mann also manufactures bespoke pallets, cartons and tubes while supplying a full range of end-of-line packaging materials.

T: 01274 735881
 E: info@holman.co.uk

HPC GEARS

Stand G9

Exhibits are taken from HPC's range of gears and drive components, consisting of over 60,000 stock items.

These include spiral and straight bevel gears, simplex, duplex and triplex sprockets and chains,

racks, spur gears, helical gears, anti-backlash gears, moulded gears, timing pulleys and belts, worms and wheels, ratchets and pawls as well as plastic chains, belt guides and tensioners.

The new extended range also includes hypoid bevel gears.

T: 01246 268080
 E: sales@hpcgears.com

IGUS UK

Stand C80

The DryLin ZLW is a new linear belt drive actuator from Igus said to be the first positioning unit to be fitted entirely with plain bearings. The belt drive is maintenance free, low weight and designed to position small loads quickly.

Also on view is the Micro Flizz energy chain system, offered as an alternative to bus bar or small festoon solutions for carrying air, water and other fluid lines in rapid, frequent movements.

The energy chain runs in an aluminium guide channel, which supports the upper and lower run of chains, giving light weight and low wear.

T: 01604 677240
 E: sales_uk@igus.co.uk

ILPRA SYSTEMS UK

Stand B121

The Easyform thermoformer on show for the first time is a compact machine built in stainless steel and anodised aluminium, with IP65 protection, for small and medium production levels in the food and medical device industries.

Able to work with both flexible and rigid material, the machine is available in two versions – the Easyform N for sealing only and the Easyform VG for both vacuum and vacuum and gas packaging. Servo motor drive is standard.

Optional equipment includes coding units, dosing systems, slicers, and an in-line flexographic printer.

Information is also available on



Harland Machine Systems: Sirius in-line label applicator

the company's range of tray sealers, form-fill-seal machinery and bagging equipment.

T: 01793 814604

E: ilpra@ilprauk.fsbusiness.co.uk

INDUSTRIAL WASHING MACHINES

Stand F55

The latest EDI range of utensil washers from Industrial Washing Machines offers a variety of models with a footprint from less than 0.8 sq metres up to just under 1.4 sq metres and all will fit under a ceiling that allows a 2.15 metre clearance.

Each machine has an ergonomic double door front access with the upper door sliding upwards and the lower door dropping to form a handy loading platform.

The machines have twin wall construction as standard for heat efficiency and the stainless steel interior is self cleaning, with rounded interior corners helping to achieve a high level of hygiene. A detergent dispenser can be fitted if required.

Systems to monitor and record the cleaning process can also be fitted to provide an alarm system for managers and data to support HACCP.

T: 0121 459 9511

E: sales@indwash.co.uk

INTEGRAPAK

Stand E26

Integrapak is featuring the latest developments in retort pouches and aseptic pouch filling from Volpak as well as the new drinks pouch designs PepUp and Duo.

Information is available also on a wide range of packaging machinery including Hensen equipment for pre-made stand-up pouches with and without spouts, Corniani and Ocea net weight liquid filling and capping machines, automatic labelling machines for speeds up to 60,000 cph and Wipak multi-lane vertical form-fill-seal machines for



Ishida Europe: DACS-W checkweigher

three and four side sachets and bulk liquid bags up to 19 litres.

Further equipment includes end-of-line systems, board sleeving, cartoning and flow-wrapping as well as the new range of stickpack and tetrahedral pack machines from J&B Blazek.

T: 01420 593680

E: integrapak@integrapak.co.uk

INTERACTIVE CODING EQUIPMENT

Stand F111

The new ICE Zodiac Plus is an enhanced version of the Zodiac solid state coder, offering greater flexibility particularly in random catch-weigh applications, with high-speed imaging and an inherent ability to queue data while printing.

Also on view is the ICE Torus high-definition case coding range, which now includes print-apply equipment using industry standard print engines.

Coder networking is hosted by the Claricom Package Coding Management System software shown linking different coder models to a central host system, removing risk of human error in data entry for date and traceability coding.

T: 0115 964 0144

E: info@uk.interactivecoding.com

INTERCAPS

Stand E80

Intercaps is featuring its role as a specialist supplier of complete filling lines for water, soft drinks and spirits to small and medium sized producers.

These include depalletising, rinsing, filling, capping carbonating, labelling and palletising.

T: 0131 335 3335

E: sales@intercaps.com

INTERROLL

Stand E50

Exhibits cover the company's range of rollers, motorised drums and belt conveyor drives.

T: 01536 200322

E: gb-sales@interroll.com

IOP: THE PACKAGING SOCIETY

Stand B136

IOP: The Packaging Society is the packaging division of the Institute of Materials, Minerals and Mining. It provides a wide range of services to members as well as education and training facilities.

T: 01476 514590

E: iop@pi2.org.uk

ISHIDA EUROPE

Stand F91

The R Series multihead weigher includes more weigh heads than before in each calculation, giving higher accuracy despite its high speed.

Ishida says that even in average weight mode, the improved accuracy provides a 0.5 per cent increase in yield compared with its previous best machines.

Also shown is the QX775 tray sealer, which incorporates a DACS checkweigher to allow pack weights to be checked before sealing, so minimising waste and providing feedback data for upstream equipment.

The sealer handles up to 70 trays a minute and uses an inside cut technique to eliminate film overhang and reduce consumption by 5 per cent or more.

A DACS-W checkweigher is also on display. The machine can be specified with a camera that allows pack images to be stored in its memory for immediate recognition, enabling product set-up and changeovers to be carried out in seconds.

T: 0121 607 7700

E: info@ishidaeurope.com

JACOB UK*

Stand F25

Modular pipework systems are featured, such as conveying pipes for bulk goods handling and dust extraction.

Applications span a broad range of industries, especially food and animal feed, chemicals, pharmaceuticals, plastics, paper-processing and building materials.

T: 01694 722841

E: sales@jacob-uk.com

JACOB, WHITE (PACKAGING)

Stand F16

Two new machines, the SLX sleeve and the RSB3.1 end-load cartoner, are on demonstration in

semi automatic format, although both are available as fully automatic systems. Each runs at speeds up to 100 a minute.

Said to be competitively priced, the machines are built from stainless steel, feature a small footprint and incorporate PLC control.

T: 01322 272531

E: info@jacobwhite.com

JENTON INTERNATIONAL

Stands B80 & B81

One of the latest ATS paper and film banding machines is on show along with samples of products banded with printed material, suitable for a wide variety of applications.

Jenton Ariana is showcasing its latest range of convergers, while information is available on pad placing systems for pre-cut peach pads or rollstock, stackers for multipacks, tray denesters, mince portioners and pack seal testers.

Also shown are JenAct GRU-V air sanitisation systems for reducing airborne pathogens in a food environment and the PocketVibra vibration analysis system.

T: 01256 892194

E: info@jenton.co.uk

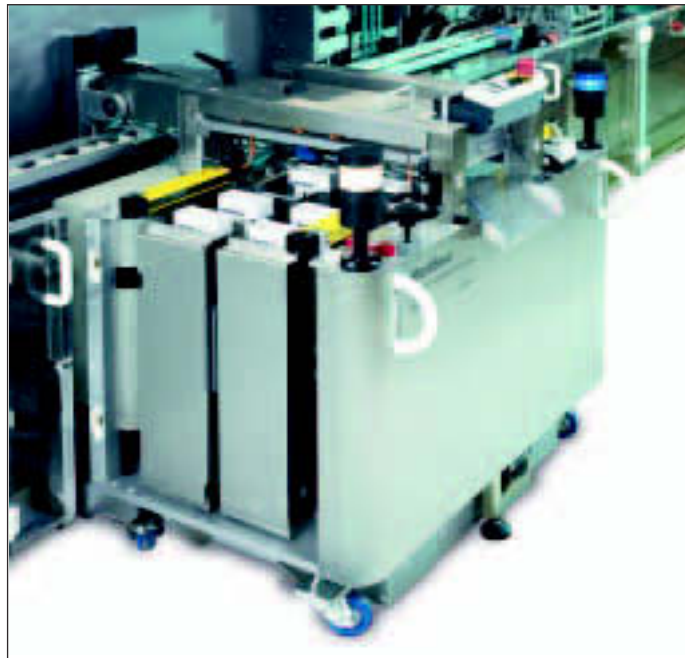
KARMELLE

Stand C96

An automatic capping system for steel drums, typically 15-25 litres, is being launched by Karmelle to replace the mostly manual operation of placing Berg caps and driving them home, usually with a hammer.

The APC 15 Berg capper employs a Cognex vision system to detect the position of the bung hole in drum tops as they enter the machine from the filler, allowing the servo controlled capping head to move itself into position for applying and pressing the cap into place. This takes 0.5 seconds.

The entire cycle for a 20 litre



Koerber Medipak: BIB-BOB system for late stage customisation of blisters

drum is less than 4 seconds which, giving 15 plus drums a minute, matches most existing filler speeds points out Karmelle.

T: 01484 549334

E: sales@karmelle.com

KENRAY FORMING

Stand C60

Kenray is featuring its Superior range of quad seal forming sets for form-fill-seal machinery as well as the K-Lite range designed specifically to reduce weight and noise while increasing running speeds.

T: 01530 244210

E: enquiries@kenrayforming.com

KMG SYSTEMS*

Stand G56

On demonstration is the Autoflow-Plus, a conveyor system that carries friable products to multiple outlet points with no need for gates. Driven electronically it enables product to be steered towards or away from an outlet as material is required or not.

Also on show is the Autoglide horizontal motion conveyor, able to carry friable product over long distances.

T: 01767 650760

E: sales@kmgsystems.com

KOERBER MEDIPAK

Stand F90

A late stage customisation system that allows high speed blister packing machinery to be kept employed efficiently on long runs, with blisters fed into cassettes for short-run printing and cartoning on separate machines, is being shown in the UK for the first time by MediSeal.

At the heart of the concept is a logistics module, the BIB-BOB – blisters into box blisters out of box – which takes the blisters

automatically from a thermoformer and stacks them neatly in a bulk hopper. These blisters can be fed back at a later time into the cartoning system.

A new security system for late stage customisation is also being presented, based on a 2D code – applied within the blister packer – that identifies the blister to separate printing and packaging processes.

Further exhibits include the new NT 104 TopLoad cartoning machine from Dividella, a semi-automatic, entry level machine in which cartons are filled and sealed manually.

T: 07841 678122

E: info@uk.koerber-medipak.com

K TEC TECHNOLOGIES

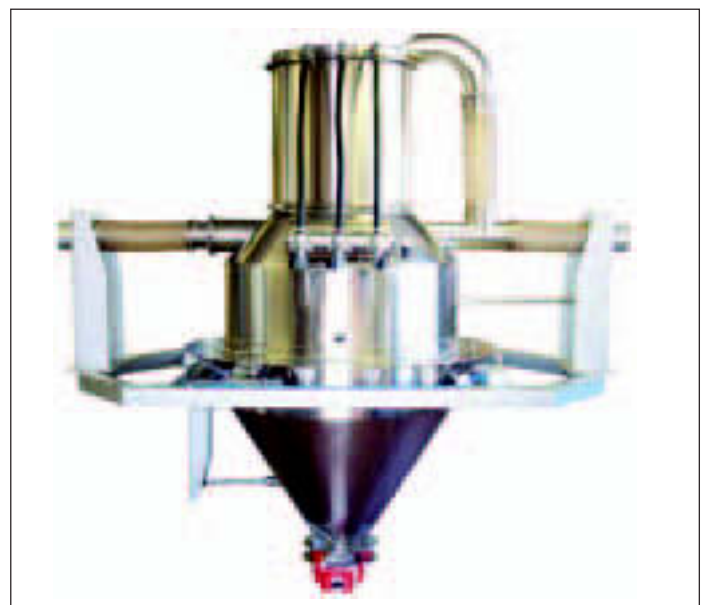
Stand A85

The On-Line Verifier is a new print-apply machine using a Toshiba SX label printer with 100 per cent label verification facilities.

If an imperfect bar code is detected it can be 'nulled' with overprinted black lines, allowing the label to be removed from the label stream or the product ejected later for re-labelling.

T: 01527 529713

E: sales@ktecgroup.co.uk



K-Tron PCS: Batch weigher vacuum receiver

K-TRON PCS*

Stand C125

Additions to K-Tron's pneumatic conveying systems include the P-series vacuum receivers which feature a sanitary design and are designed to convey delicate materials such as tablets and capsules as well as free flowing and difficult powders.

K-Tron's pneumatic conveying capabilities are demonstrated by a range of equipment for plastics processing, including specially designed vacuum receivers for hard to handle and sticky powders. Solutions for batch weighing multiple materials are on display.

The latest addition to the bulk solids pump feeder range is the BSP 135, able to provide gentle feeding of free-flowing pellets, granules, flakes, powders and friable products, while there is also K-Tron's SWB-300 smart weigh belt, available in 300 and 600mm belt widths.

T: 0161 492 2430

E: mplant@ktron.com

KULP MAKINE

Stand A94

Turkish manufacturer Kulp – exhibiting at a PPMA Show for the first time – is introducing two series of semi-automatic volumetric depositors on the UK market for filling liquids, pastes and creams within the food, cosmetics, chemical and pharmaceutical industries. Doses from 5ml to 5 litres can be handled.

The D Series machines are aimed at liquid, semi-liquid or hot-fill products such as mustard, ketchup, salad sauces, mayonnaise, fruit concentrates, shampoo, hair gel, perfume and so forth.

The VD Series are for viscous, sticky or hot-fill products such as sauces with particulates, chutney, marmalade, jam, processed cheese, cream cleansers, adhesive,

cream, nail varnish, or hair conditioner.

T: +90 2166 412183

E: ceren@kulp.com.tr

LANDOR CARTONS

Stand E105

On demonstration is the Econocorp E2000 end-load cartoner, a compact fully-



Jacob,White: *Introducing the new RSB3.1 end-load cartoner*

automatic intermittent motion machine capable of speeds up to 1200 cartons an hour.

T: 0121 359 8511

E: pkgsales@landorcartons.co.uk

LELY-WELGER RECYCLING ENGINEERING

Stand F86

Portable Welger balers are capable of producing 25-30kg cylindrical bales of plastic film, cardboard, textiles and paper every 4 minutes, reducing volume by a ratio of up to 15:1.

The larger Welger SB bale presses can either be integrated into an automatic production line or used on a standalone basis.

A can crusher – the Welger CD 100 – is able to compress up to 450 aluminium cans into a 230 x 330 x 225mm bale.

T: 01480 226800

E: recycling.engineering@lely.co.uk

LENZE

Stand B75

Drive and automation products from Lenze include the new EL 105 control panel which, with its 5.7in monochrome or colour touchscreen, is the most compact in the Lenze Digitec Embedded Line series for installation in a control cabinet or machine enclosure.

Used with the visualisation tool VisiWinNet Smart, it becomes a complete control and monitoring system for machinery.

Also shown are the new Panel PCs EL220 to 9200 which can be adapted to control and visualisation tasks, machine-operation, measurement and parameter setting or image processing.

T: 01234 321321

E: sales@lenze.co.uk



Linx Printing Technologies: Ink jet and laser coders are on display

LINE EQUIPMENT

Stand E36

Exhibits are taken from the company's range of vertical form-fill-seal machines and cross-web applicators for reclosable zipper profile.

T: 01773 717007

E: johnatline@aol.com

LINX PRINTING TECHNOLOGIES

Stand D30

The Linx 4900 continuous ink jet printer is designed to meet everyday product coding and marking requirements, printing one or two lines of text and logos at production line speeds up to 6.25 metres/sec onto virtually any material.

It is on demonstration using the new Linx Black ink 1075, an alcohol and chemical-resistant ink offering fast drying, which allows its use on high-speed bottling lines.

The Linx 500SL steered beam laser coder is aimed at high speed applications such as label coding in the bottling industry while the 300SL, a mid-powered steered beam laser coder, is said to be smaller and weigh less than other industrial laser coders in its class.

Also on show is the IJ600 twin

head outer case ink jet coder which can print both sides of a container simultaneously at any angle.

T: 01480 302100

E: uksales@linx.co.uk

LOCK INSPECTION SYSTEMS

Stand F41

Metal detectors and checkweighers for both food and pharmaceutical industries are to be seen.

The Pharmaceutical metal detector is the most sensitive in Lock's Met 30+ range and can be equipped with software for compliance with CFR 21 Part 11. Speed is up to 30,000 tablets a minute.

For the food industry there is the Atex Zone 21 certified Compact

Vertical Fall, capable of monitoring a broad range of materials, and the Compact Waferthin that fits in minimum space between multihead weighers and vertical form-fill-seal machines.

Lock is also showing its MET 30+ 3f and hf detectors. The 3f operates at three frequencies – high, medium and low – with automatic selection of the optimum frequency, while the hf is primarily for snack food and bakery industries and increases efficiency and operating speeds by eliminating the need to reconfigure the settings for each product.

Further exhibits include a WeighChek CK checkweigher with a built-in 'Smartweigh' facility that indicates the weigh-pulse for each product and displays any mechanical interference experienced by the load cell.

T: 0161 624 0333

E: marketing@lockinspection.co.uk

LONDON ELECTRONICS

Stand C150

London Electronics has introduced a new range of low cost displays that can be mounted on a production line to show production statistics such as speed, target, total rejects, total good product, machine availability, and overall quality.

They are said to be simple to use



Lock Inspection: Met 30+ metal detector

and to be capable of set-up by non-technical staff.

T: 01462 850967

E: sales@london-electronics.com

LONGFORD EUROPE

Stand F65

Longford feeders are independently servo driven and can be interfaced with packaging equipment such as flow-wrappers, baggers and horizontal or vertical cartoners without chain or drive shaft connections.

Speed controlled via encoders, the machines are said to offer easy changeover and the ability to handle a wide range of products.

T: 01628 627584

E: longford europe@longfordint.com

LOVESHAW EUROPE

Stands A70 & A80

Little David packaging equipment includes case erectors and sealers, ink jet printers and the Diagraph range of manual marking and coding products.

T: 01264 357511

E: sales@loveshaw-europe.co.uk

MARDEN EDWARDS

Stand D91

The new TM100 trailing edge seal overwrapper is an enhanced version of the TM85 machine introduced a year ago, particularly for premium quality fragrance and cosmetic pack wrapping.



Marden Edwards: Introducing an enhanced version of the TM85 overwrapper

The size range handled by the machine has been increased to enable a 100mm high pack to be wrapped, the infeed transfer has been changed to an optimised servo motor driven system and a pack transportation system has been incorporated to separate the packs as the film is being folded.

Marden Edwards says these extra features will provide faster wrapping speeds while retaining the same high wrap quality.

Also on show is the Marden Edwards B125 automatic collating and overwrapping machine. This is used to collate cartoned products automatically in groups to form either a bundle suitable for distribution or to provide a retail multipack.

T: 01202 861200

E: marketing@wardenedwards.com

MAREFA

Stand C61

Exhibiting at a PPMA Show for the first time, South African manufacturer Marefa builds a range of bottle and tub filling equipment for the dairy, beverage and food industries.

The range includes rotary fillers for hdpe and pet bottles, bottle handling systems, standalone capping units, labelling machines and speciality bespoke filling lines.

T: 0027 218629944

E: etienne@marefa.co.za



Longford Europe: Independently servo driven range of feeders

MARKEM SYSTEMS

Stand E10

Coding and marking specialist Markem is demonstrating how risk of coding errors can be eliminated by using automated data entry for date and batch code information, and how supply chain compliance can be achieved by translating prime product data to correct retailer formats at pack, traded unit and pallet-load levels.

In addition, the company is showing how packaging can be validated, making sure that operatives match product with the right pack, and how to use traded unit look-up to identify cases and shrink-wraps for correct pallet assembly.

Other demonstrations involve improvements to stock control via links between SSCC pallet labelling, factory-wide systems and inventory records.

T: 0161 333 8400

E: england@markem.com

MARLIN STAINLESS

Stand G46

Stainless steel bodied motors and motor-gearboxes from Marlin Stainless, a division of AEG Electric Motors, are rated to IP66 and said to enhance hygiene, being easy to clean and hosedown resistant.

Fully interchangeable with standard motors, these 304 stainless steel units also have smooth exteriors, with no cooling fins or nameplates to harbour germs and dirt. Rather, data is etched into the motor body.

For internal protection against moisture, and to provide compatibility with inverter control, the motor stator windings are double vacuum and pressure impregnated and phases are insulated.

T: 01270 270022

E: motors@marlinstainless.co.uk

MASO PROCESS PUMPEN*

Stand C65

Examples of the Maso Sine positive displacement pump are on demonstration, including the new Ecosine models – the next generation in sine pump technology – along with seal-less magnetic drive pumps from the company's industrial division, HMD.

Also on the stand is TNT Container Logistics with bulk liquid product handling containers including the new drop sided Palecon Ultra and a 1000 litre Palecon, complete with a working discharge pump assembly.

T: 07799 665533

E: gsaunders@sundyne.com

MASS MEASURING SYSTEMS*

Stand E45

Weighing and metering specialist Rospen Industries, part of Mass Measuring Systems, is demonstrating a materials handling system, based on its standard products, combining conveying, weighing, blending and batching.

The mini system feeds product through a flexible screw conveyor and up to a metering screw feeder which drops product into a receiving hopper on a vacuum hopper loader and back to the screw conveyor.

Also on show is a flow choke and liner clamp for FIBC discharge through a Granmill mini metering screw feeder.

T: 01453 825212

E: company@rospen.com

AMJ MATERS

Stand B76

The Lantech-Rembrandt C-300 case erector and the Combiplast case erector and bag inserter are on show offering speeds, respectively, of ten and 12 cases a minute.

In addition there is the Palsys GRP-40 gantry robotic palletiser – speed 9-18 cases a minute – and the Roboxis high speed robotic packaging system for frozen pastries, fish, and so forth.

T: 01763 838164

E: sales@matters.co.uk

METTLER-TOLEDO

Stand D31

Inspection and industrial weighing equipment includes a new range of IP69K static checkweighing machines, an IP69K industrial PC, and weigh-price labellers.

The new Mettler-Toledo product inspection division is also being launched, having been set up to provide a single point of contact for both Mettler-Toledo Safeline and Mettler-Toledo Garvens

product ranges. These include metal detectors for applications within the food and pharmaceutical industries, X-ray inspection systems, checkweighers and weighing systems.

T: 0116 235 7070

E: enquire1.mtuk@mt.com

MORRAY ENGINEERING

Stand F30

Exhibits are taken from Morray Engineering's range of machinery for weighing, filling, emptying, sealing, discharging and palletising most powders and granular products.

This includes Morray's own range of filling machines as well as Binder high speed fillers, Hamer horizontal form-fill-seal machines and the Fuji robot palletiser.

The latest palletising robot, the EC-201, offers speeds up to 1600 cycles an hour.

T: 01376 322722

E: sales@murray.com

MPE SYSTEMS*

Stand E85

The semi-automatic Van Meurs B200 aseptic bag-in-box filling machine on show has a capacity of 5400 litres an hour and can accommodate all types of closure and bags from any manufacturer.

The filling valve is steam sterilised and dried with sterile air



MPE Systems: Van Meurs B400 aseptic bag-in-box filling machine

THE PPMA SHOW 2006



Multipond: Mobile lift weigher can be lowered and cleaned off line

after each bag. A fully automatic version, the B400, has recently been introduced.

Also on display is a Terlet Terlotherm scraped surface heat exchanger, which can handle viscous liquids or products containing large particulates. There are five sizes, the largest giving a heat transfer surface area of 4.4 sq metres.

In addition there is a 700 litre Terlet scraped wall processing vessel with bottom driven agitator.

T: 01235 554771
E: info@terlet.com

MULTIPLICITY*

Stand D66

The Auriol tilting type process vessel on display is for handling food products including meat. It

generates its own steam and comes with a specially designed agitator.

Also on display are Copic sequential blanchers for rice, cous cous, pasta and vegetables.

T: 01923 210750

E: enquiries@multiplicity.co.uk

MULTIPOND

Stand D111

Multipond's main exhibit is the MP1612-FFC-S5 high speed 16-head combination weigher, fitted with the company's 'Double Duck Mouth' transfer system said to ensure a clean discharge into baggers. The machine is capable of running 1kg of fresh produce such as potatoes at 100 weighings a minute.

A second machine on show is the LW 1201-C/VA Mobile Lift Weigher, with integral lift mechanism allowing the machine to be employed with no need for platforms, so reducing cost and providing a flexible solution.

T: 01494 816644

E: info@multipond.co.uk

THE NEEDHAM GROUP

Stand B100

New for the show is the Macsa K-1000 Series of laser coders, claimed to be the most competitively priced lasers currently available with price levels comparable to continuous ink jet coders.

The K-1000 Series laser coders are available with 10W, 30W or 60W of power, a wide range of Windows based fonts, full graphic, logo and barcode capabilities, Ethernet networking capabilities and comply with pharmaceutical coding standard 21 CFR 11.

Also shown is the Citronix 2006 ciSeries range of continuous ink jet coders said to be particularly cost effective and "provide a specification usually associated with top of range models, but at an entry level price".
T: 01948 662629
E: info@needham-group.com

NEWMAN LABELLING SYSTEMS

Stand F61

The 4VAL low cost tray-to-tray pharmaceutical labeller, launched at Achema, is on show in the UK for the first time.

It applies both filmic and paper pressure-sensitive labels at speeds in excess of 200 packs a minute to cylindrical containers such as ampoules, vials, syringes and cartridges.

Equipped with stepper motor drive of the label web as standard, the machine is said to require virtually no change parts, with hand wheel adjustment for rapid size change.

T: 020 8440 0044
E: sales@newman.co.uk

NORDEN (UK)

Stand D101

Exhibits are taken from the company's range of tube fillers, cartoners and specialist filling and assembly machinery.

T: 01462 895245
E: enquiries@norden.co.uk

NORDSON (UK)

Stand C101

Adhesive application equipment for both hot and cold glue is featured.

T: 01844 264500
E: salesoxf@uk.nordson.com

NORPAK

Stand D2

Norpak specialises in machinery for bagging and various sealing applications and is featuring a representative selection from its range.

T: 01274 681022
E: info@norpakltd.com

NORPRINT

Stand E101

Norprint is demonstrating a selection of its labelling and RFID systems for all sizes of packing operation, including applicators for top and bottom or side labelling, complete end-of-line systems, label printers and a new range of RFID readers.

Details are also available on a new e-procurement web portal that enables customers to select and buy equipment online, including the latest barcode readers/verifiers, and to access what is said to be one of the largest stocks of thermal transfer ribbons in the UK.

T: 01205 365161
E: norprint@norprint.co.uk

NOVOPAC (UK)

Stand A55

Best known so far in the UK for its range of medium and high speed shrink-wrapping and wraparound case-packing machinery, Novopac



On-Line Coding: Easyprint Communicator thermal transfer printer



Newman Labelling Systems: New 4VAL low cost pharmaceutical labeller

is exhibiting one of its smaller semi-automatic shrink-wrappers at this year's show.

Also on the stand is an ATR205 pallet wrapper built by Ital-Pal, Novopac's sister company which specialises in palletising and de-palletising equipment.

T: 01403 740003
E: richard@novopac.co.uk

OK INTERNATIONAL

Stand D105

A redesigned case lining machine, the Superliner SL220, is being introduced with enhanced controls and an improved sequence that make the machine capable of up to 18 cycles a minute.

Built in stainless steel, the SL220 makes bags of variable length from rolls of continuous gusseted tubing. The bag is opened

and placed into a case, crate, drum or tray with the neck cuffed over the edges, providing a hygienic container ready for filling with a variety of food and non-food products.

Also to be seen is a newly redesigned Superformer stainless steel case erector and bottom taping machine. Three sizes are available to handle cases from 6 x 6 x 3in up to 31 x 20 x 24in at speeds of 10-25 a minute.
T: 01359 250705
E: sales@okinteuropa.co.uk

OLYMPUS INDUSTRIAL

Stand B35

Olympus Industrial makes a range of high speed video cameras that record fast moving processes and replay in slow motion for use in new machinery R&D and troubleshooting.

T: 01702 616333
E: industrial@keymed.co.uk

ON-LINE CODING

Stand A31

Thermal transfer printers from Danish manufacturer Easyprint are on show for intermittent, continuous and multi-lane (traversing) applications.

All use a 145mm touch screen control, which incorporates full on-board print format generation software, complete with Qwerty input and network ready Ethernet connections.

In particular there is the continuous motion Easyprint Communicator which can be integrated with intermittent labelling systems to overcome any problem of insufficient dwell time for intermittent printers to operate while the label is stationary.

Instead, the Communicator prints while the labels are being dispensed, giving high speed labelling and coding even when packs are close together, or touching, at dispensing speeds up to 40 metres a minute.

T: 0118 988 8300

E: info@on-linecoding.com

OPEN DATE EQUIPMENT

Stand E20

Exhibits are taken from the Open Date range of thermal transfer and hot foil coding systems.

T: 020 8655 4999

E: sales@opendate.co.uk

OPTIMAL INDUSTRIAL AUTOMATION

Stand D116

The synTI product quality and authenticity verification software suite is on demonstration linking a printer, vision sensors and an RFID system while providing an audit trail that can be viewed on screen.

The system can be used with printing, component or print inspection, bar code or data matrix checking and RFID systems to combine the user's verification requirements into an open platform in compliance with 21 CFR Part 11.

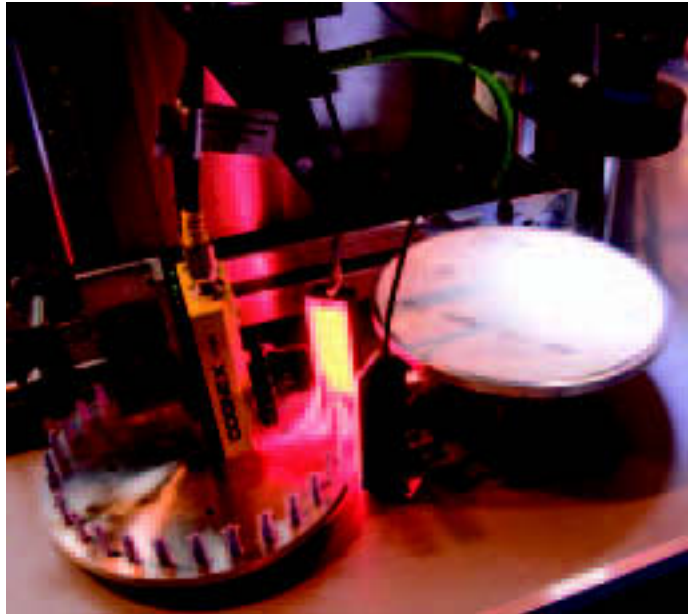
T: 01454 333 222

E: mgadsby@optimal-ltd.co.uk

ORION PACKAGING SYSTEMS UK

Stand D40

The i-Pal robot palletising system, which is available for rent, consists of a robot with pallet conveyors and a pick point all mounted on a steel skid.



Optimal Industrial Automation: Verifying product quality and authenticity

On arrival, the unit can be simply rolled out of its shipping container and positioned at the end of the production line, ready for use.

Its universal gripper head allows it to palletise a wide range of products and there is an automatic pallet changing system for uninterrupted operation. Capacity is 20 products a minute.

Pallet wrappers on display include the Orion ARA400 automatic rotary arm machine, capable of 70 pallets an hour, as well as automatic orbital wrapping systems and semi-automatic machines.

T: 01432 851129

E: enquiries@orionpackaging.co.uk

OVERPRINT PACKAGING

Stand C121

Coding and marking systems are available for virtually all applications, using ink jet, hot foil, hot ink and thermal transfer machines.

Overprint also has two new ranges of coding equipment from Italian manufacturers Eidos and Kobold.

T: 01895 824090

E: info@overprint.co.uk

PACEPACKER SERVICES

Stand F105

Pacepacker has extended its range of palletising and pick-and-place systems based on Fanuc robotics to include its own multi-axis servo systems, said to provide low cost and high payload for loading retail trays and cases at speeds up to 120 packs a minute.

With a payload of 4.5kg, an entire layer can be transferred in a single cycle.

The company is also able to supply specialised robotic systems for filling and indexing dollies,

trolleys and pallet boxes, with ancillary equipment that includes printers, label applicators, checkweighers and reject systems.

T: 01371 811544

E: mail@pacepackerservices.com

PACKAGING AUTOMATION

Stand F31

On show for the first time, the new Fastfill 100 rotary pot filler and sealer from Packaging Automation is capable of handling up to 100 pots a minute and can be equipped to fill liquids such as sauces and yoghurt, dry products such as cereals or nuts and semi-viscous products with particulates.

A combination of layered dry and liquid, or liquid and particulate product, can also be produced with no loss in performance, says the company. Pots up to 130mm in diameter and up to 140mm deep can be accommodated.

Also shown is the smallest of the range, the low cost Fastfill 40, which was launched at last year's PPMA Show.

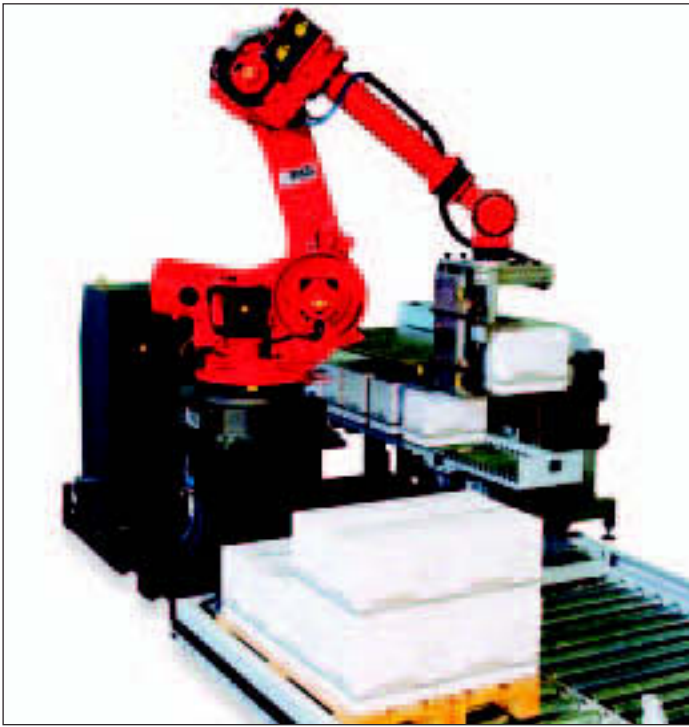
Further exhibits include the Vision 400 automatic, high speed MAP tray sealer and the PA182 semi-automatic hand turned rotary table tray sealer.

T: 01565 755000

E: info@pal.co.uk



Pago: System 80 labeller is said to be versatile and economic



Orion Packaging Systems: *The i-Pal robot palletising system*

PAGO

Stand E110

Pago's System 80 pressure-sensitive labelling machine is said to be a versatile and economic system that can be tailored to a variety of applications including front-and-back or wraparound.

Single and twin head versions are available, with a choice of head, chain mechanism to centralise, pitching wheel to assist accuracy and after-roll wipe down. Prices start at under £20,000.

Also on show is a new high speed labeller that uses an air cushion to support a variable length buffer loop of labels between the unwind and dispensing beak. This eliminates inertia in the system, allowing high speed without risk of web snatch or breakage.

Depending on label length, which can be 10-300mm, the new Pagomat 6/3 can run at speeds up to 120 metres a minute.

T: 01206 755206

E: sales@pago.co.uk

PANASONIC ELECTRIC WORKS UK

Stand E111

Principal exhibits are the new PV310 machine vision system and the AX40 colour machine vision

system, part of a wider range of vision systems for inspection duties within processing and packaging.

There are also examples from the SUNX sensor and Panasonic human-machine interface product ranges.

T: 01908 231555

E: info-uk@euro.de.mew.com

PARAMOUNT PACKAGING SYSTEMS

Stand C30

Two examples of the new Alpha 6 series of flow-wrappers built in Japan by Fuji are being demonstrated by agent Paramount Packaging.

These form part of a new range of Alpha 6 flow-wrappers that also includes high-speed machines for confectionery and bakery, and a four-side-seal model for food and medical devices. All are built as standard in stainless steel on a balcony basis for hygiene and ease of cleaning.

On show is the FW3410B for modified atmosphere packaging. It uses a new design of long dwell sealing jaws that move with the film to give extended sealing times for hermetic seals at speeds of 130 items a minute or more, for both food and medical devices.

There is also the FW3400BS,

an inverted flow-wrapper shown equipped with a Fuji attachless infeed in which products are timed into the machine by belts rather than lugs. Equipped with a high speed rotary sealing jaw, the machine is aimed at soft or sticky products and other goods such as fresh produce that are best carried through the wrapping process on the film itself.

T: 01252 815252

E: fuji@paramount-packaging.co.uk

PARTNERS IN PACKAGING

Stand F70

A new generation Streamfeeder Pro series card feeder is being introduced featuring the new Flow-fold module which accepts flat pre-creased U and C cards and folds them as they are dispensed, so avoiding any need to modify flow-wrapper infeeds.

Also on show is the new Vepatec stainless steel SSV200 wraparound tray sleeving machine, which applies flat blank sleeves at up to 140 a minute providing "significant cost benefits" compared with pre-glued sleeves.

Further exhibits include the new Etipack System 9 print-apply labeller.

T: 01706 369000

E: sales@partnersinpackaging.com

PFM PACKAGING MACHINERY

Stand F110

Form-fill-seal machinery on show includes the PFM Mistral, a 120-a-minute flow-wrapper which is optionally available equipped for MAP and to incorporate zipper profile for reclosable packs.

There is also the Vetta 3348, a vertical form-fill-seal machine able to produce a variety of pack styles including four-corner seal bags, EasyPak reclosable bags, bags with zippers and stand-up pouches.

In addition there is the PFM



Partners in Packaging: Vepatec SSV200 wraparound tray sleever

Scirocco MAP flow-wrapper, capable of speeds up to 200 a minute, and the PFM Swift entry-level flow-wrapper capable of 80 packs a minute.

PFM's range of multihead weighers is represented by the ten-head MBP 10C2R machine.

T: 0113 239 3401

E: sales@pfm-ltd.co.uk

PIAB*

Stand F81

The new IC industrial vacuum conveyor is a low cost system for non-food applications while the new C21 compact version is said to combine high efficiency with GMP and a height of under 290mm.

The Coax P6010 vacuum pump automatically senses the required vacuum level and adjusts its performance accordingly to maintain a steady state.

T: 01509 814280

E: info@piab.co.uk

PPMA AND PPMA PUBLISHING

Stand E70

Full details are available on the range of services provided by the PPMA, particularly the Machinery Finder service, which is running from the stand.

Copies of the new 2006-2007 PPMA *Processing and Packaging*

Machinery Directory, published in August, are on sale at a special exhibition price of £25 and there is also a range of PPMA publications covering the latest safety regulations and EU Directives.

Full details are available on the current series of PPMA training courses and seminars, while visitors to the stand can register for their own free copy of *Machinery Update*, the journal for buyers and specifiers of processing and packaging machinery.

T: 020 8773 8111

E: administrator@ppma.co.uk

PREMIER LABELLERS

Stand C50

Exhibits are taken from the company's range of label applicators which extends from standalone applicators to in-line single and multihead machines, including front-and-back, wraparound and print-apply models.

T: 01255 553822

E: labellers.plfuk@btinternet.com

PRINS UK

Stand A71

Prins UK is showing a new 14 head multihead weigher with touchscreen control, a 12 head multihead, the latest Inno-tech

3800 Revo bagging machine and two of the latest Apex checkweighers, one of them combined with a metal detector.

Information is available on economy baggers from German manufacturer Prewa and on the Prins ready meal line concept which provides quicker changeover and auto loading using a crate loader for fresh and frozen product.

Prins' MLC 8/16 multihead weigher for long piece products, originally designed for frozen fish fillets, is able to handle many other lengthy products such as asparagus, spring onions, leeks and runner beans, up to 500mm maximum length.

T: 01299 251400

E: info@prinsuk.com

PRO-FACE UK

Stand C73

Pro-face specialises in making HMIs, industrial PCs, monitors and data handling equipment.

On show is the AGP range of high resolution colour touchscreens which can be panel mounted or be used as standalone displays on a purpose-built stand.

Industrial PCs are represented by the PS3651A which is a slim-line compact panel computer with a 12.1in XGA TFT colour touchscreen, Pentium 4 processor, 512Mb DRAM of memory, 40Gb hard drive and has the Windows XP multi-lingual operating system pre-installed.

T: 02476 440088

E: jsmallwood@profaceuk.com

PROPACK AUTOMATION MACHINERY

Stand B101

Propack is demonstrating three machines working with flexible packaging materials as well as equipment for handling rigid containers in the personal care and pharmaceutical industries.

From Enflex comes the F-14 horizontal sachet machine suitable

for products such as powder, granules, liquid and pastes in addition to towelettes and needles. Sachets with zippers, caps and straws can be handled.

The stick-packing machine from Inever, shown in the UK for the first time, employs independent vertical sealing bars, motorised material reel alignment and automatic height change over a film unwinder with automatic compensator. There is also the Synchropack Pack 900RT electronic flow-wrapper.

Filling and capping equipment is represented by the Comas MC3 compact liquid and cream filler and capper, which comes with a set of adjustable pucks in order to accommodate several formats of bottle, which are unloaded from the puck by a pick-and-place device.

From German manufacturer DMP comes cap and bottle sorting, capping and assembly machinery while Zaugg of Switzerland is showing one of its new generation tray de-nesters with servo-driven axes that provide high accuracy in de-nesting and tray placing.

T: 024 7647 0074

E: office@propack.co.uk

QUICK LABEL SYSTEMS

Stand C111

Short-run colour label printing is featured, using digital printers developed by the company.

T: 01628 668836

E: info@quicklabel.co.uk

QUIN SYSTEMS

Stand C85

Quin Systems has set up a new partnership with Endoline Machinery and is showing a high-speed automatic casepacker based on its Rtheta product handling technology and an Endoline case erector.

Quin's Rtheta product handling technology is said to provide "exceptional" levels of perform-



Quin Systems: High speed case packer based on Rtheta product handling

ance while avoiding "the cost and complexity associated with robot-based solutions". It can load single or multiple layers.

The Endoline case erector features dual opposed vacuum case opening said to give consistent accuracy even when used with cases of variable quality.

Further exhibits include the Linmot range of linear motors which combine acceleration up to 200m/s² and operating speeds up to 4m/s with backlash-free for use in pick-and-place equipment and packaging machinery.

T: 0118 977 1077

E: sales@quin.co.uk

RB PLANT CONSTRUCTION

Stand G75

Services provided by RB Plant Construction include technical consulting, design engineering, mechanical and electrical engineering, civils, building services, procurement, site services and project management.

Information is available on the company's work in the food, chemical, fine chemical and pharmaceutical industries, extending from initial feasibility studies to fully designed, installed, managed and commissioned turnkey projects.

T: 01622 858387

E: simon-b@rb-plant.co.uk

RAQUE FOOD SYSTEMS SALES

Stand B40

The new compact ready meals production line shown by Raque can incorporate all the features of a typical Raque line, but installed on a moveable platform taking up little more than 3 square metres of floor space.

The pocketed carrier conveyor forms an integral part of the stainless steel base frame, while a tray denester places the containers into easily removable inserts, which allows quick size change.

The servo-driven intermittent motion conveyor carries the

containers under depositing stations which can include a linear weigher to deposit a range of products from salads to IQF frozen meat, or a piston filler to add sauce or other ingredients such as mashed potato.

Speed is in excess of 2100 trays an hour, twice that on a twin lane system.

T: 01905 642820

E: sales@raque.co.uk

RDM TEST EQUIPMENT Co

Stand G51

The HT1-XS Hot Tack Tester from RDM measures the strength of the heat seal made in vertical form-fill-seal machines, helping to prevent risk of the bottom seal peeling open if the optimum heat-sealing parameters are not met.

Users can change the temperature and record results from multiple readings on the same graph. Data can be sent to a printer, exported or stored on a hard drive.

Cold peel testing can also be carried out on the same instrument, making it possible to study both the hot tack and cold-peel performance of seals, giving data on production and the bag in use.

Further exhibits include the new Aquatran Model 1 high-barrier water vapour permeation tester, able to measure transmission rates down to one tenth that of conventional units.

T: 01279 817171

E: rdmtest@aol.com

REISER UK*

Stand A41

Processing equipment supplied by Reiser includes slicers, dicers and cheese shredders, mixers and blenders, tenderisers and forming presses while packaging machinery covers form-fill-seal, vacuum packing and MAP tray sealing systems.

T: 01908 585300

E: salesuk@reiser.com

RENISHAW

Stand E140

Renishaw manufactures magnetic and optical position feedback encoders and is showing the latest additions to its range which include washdown versions.

The solid state, non-contact magnetic design eliminates seals, bearings and moving parts, increasing reliability for motor control and automation systems. Operating temperature range is -40 to 125deg C.

New for the show is a 13-bit magnetic sensor - said to be the first in the world - which provides 8192-count positioning resolution at operating speeds to over 30,000rpm.

T: 01453 524152

E: uk@renishaw.com

RIGGS AUTOPACK

Stand G41

Food depositing and filling machinery is featured, together with transfer pumps for sauces and products with particulates, ready meals make-up conveyors, and other ancillary items.

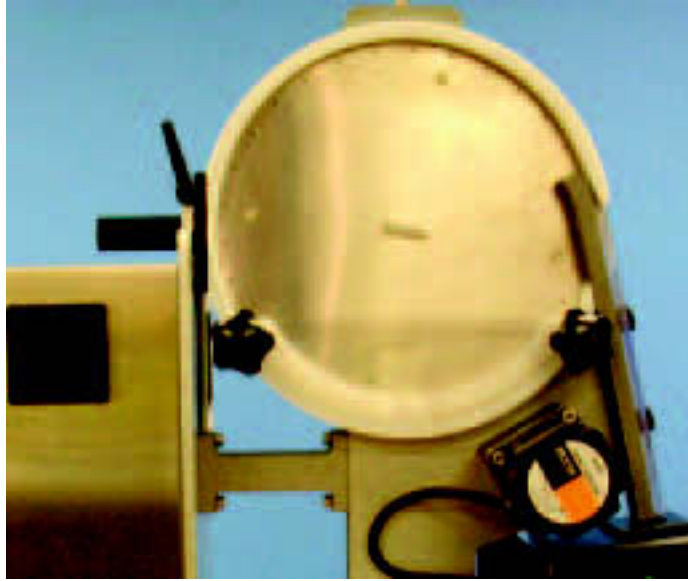
T: 01282 440040

E: riggs@autopack.co.uk

RILEY AUTOMATION

Stand E55

Parts handling equipment on display is taken from the company's range of vibratory bowl feeders, centrifugal feeders,



Romaco: New Bosspak tablet counter separates tablets with a vacuum disc

elevating parts feeders, counting and component placement systems.

T: 01332 275850

E: sales@rileyautomation.com

RM SEALERS

Stand G73

Rotary heat sealers and impulse sealers for bag closing are on demonstration.

The rotary sealers are produced in painted or stainless steel finishes and horizontal or vertical models can be supplied.

Accessories include a bag-top trimmer and an emboss coder while validatable versions to meet the requirements of the medical industry are also available.

Impulse sealers come in 300mm, 450 and 600mm widths

and can be bench or pedestal mounted. A recent addition to the range is a model with gas flushing or vacuum facilities.

T: 01442 843 387

E: rmtool@hotmail.com

ROBATECH UK

Stand E41

Robatech specialises in hot and cold glue application equipment and also supplies automatic tape dispensers and carton erectors.

T: 01225 783456

E: general@robatech.co.uk

ROMACO UK*

Stand D130

Bosspak's new format free rotating disc for tablet counting is being shown in the UK for the first time.

In place of the size-specific pockets used in earlier designs to lift and separate tablets from a bulk feed, the machine now uses a flat disc, set vertically, to lift the tablets, using vacuum that acts through a series of holes around the periphery.

This means that the new generation counters can handle tablets or capsules from 2.5 to 23mm diameter with no change parts and that de-dusting becomes an integral part of the tablet separation process.

Bosspak estimates that the four product contact parts – sorting disk, vacuum chamber, chute and funnel – can be changed over for cleaning at the end of a batch in less than one minute per station without the use of tools.

For liquid filling there is the Macofar LVI, a monobloc machine said to set new standards of access for cleardown and simple operator size changeover. Fill range is 0.5-500ml. Romaco Siebler is showing the HM2/160 strip packaging line while from Noack there is the 623 blister machine, on demonstration in line with a Promatic P91 cartoner.

Romaco's processing range is represented by the new FrymaKoruma RoTwin, vacuum homogeniser for liquids and semi-solids which, says the company, was developed to produce a particularly small droplet size within a narrow distribution band

for higher quality cosmetics and pharmaceuticals.

T: 01480 435050

E: uk@romaco.com

ROTECH MACHINES

Stand E21

Rotech is demonstrating the latest high-speed version of its off-line overprinting system, fitted with both thermal transfer and thermal ink jet coders.

The feeding system is able to handle a wide variety of materials such as medical papers and pouches, blister cards and seed envelopes as well as sleeves and cartons.

Further overprinting systems on show include Rotech's Coder 60 hot foil machine.

T: 01707 393700

E: info@rotechmachines.co.uk

ROVEMA PACKAGING MACHINES

Stand E100

Rovema's latest high speed bagging machine, the VPL 180, is on show at a UK exhibition for the first time and breaks new ground by employing linear motors to drive the two axes of the box motion sealing jaws, replacing the conventional gearboxes.

As a result of the new drive, speed is 200 bags a minute and the seal quality improved, even on fast running with difficult films, by allowing both sealing times and sealing pressures to be pre-

programmable for the product and the film.

Pressures up to 6000N and sealing dwell times equivalent to a maximum of 200mm of vertical jaw movement can be set.

The machine is also able to detect product in the jaw at speeds of 170 a minute and makes a double bag without stopping.

The linear motors are said to be maintenance and wear free and to give quick response, free of backlash, so that acceleration can be up to 6g and positioning repeatable to within 5 micron.

The VPL offers a broad format range of 50-180mm wide with bag length up to 300mm.

T: 01296 642060

E: sales@rovema.co.uk

RUSSELL FINEX*

Stand C35

Launching the Blow Thru Sieve for use in pneumatic conveying lines, enabling processors to check-screen powder during dilute-phase positive pressure pneumatic conveying, so eliminating double handling.

The Blow Thru Sieve is a fully certified pressure vessel and meets international pressure equipment legislation. It can be used up to a maximum pressure of 2 bar and is said to be ideal for bulk powder applications.

Assembly and dis-assembly of the unit are achieved using a simple tool supplied with the sieve,

Visitors can now order tickets for this year's PPMA Show. See the PPMA Show web site: www.ppmashow.co.uk for all show information

which allows quick and simple cleaning between batches. FDA approved materials and surface finishes are available for food applications.

Also shown is the Compact Airlock Sieve, which uses a validatable pneumatic clamping system for improved product containment, and the Horizontal Eco Filter for removing oversize contamination from most liquids.
T: 020 8818 2000
E: info@russellfinex.com

RYNEX AUTOMATION TECHNOLOGY

Stand F106

Rynex specialises in complete automated end-of-line systems for the food, beverage, personal care and pharmaceutical industries and also supplies a range of individual products including robots, palletisers and depalletisers.
T: 01698 818585
E: mail@rynex.co.uk

S + S INSPECTION

Stand D26

Exhibits include metal detectors for a variety of different applications and an X-ray system.
The Rapid 5000 metal separator detects and removes magnetic and non-magnetic metal particles from free-falling bulk materials, while GF4000 Series metal detectors are designed specifically for closed vacuum or pneumatic conveying systems and can be mounted vertically or horizontally.

The Liquiscan range fits on pipework to remove metal particles from liquids, pastes and viscous food ingredients. There are also examples from the Varicon range of conveyor based machines.

X-ray monitoring is represented by the Raycon range, capable of detecting both metallic and non-metallic contaminants as well as identifying missing, broken or underweight product.
T: 01489 889824
E: info@splussinspect.co.uk



S + S Inspection: Varicon conveyor based metal detector

SAFETY TROLLEY SYSTEMS

Stand D85

The STS range of lift and clamp units for rolls up to 1200kg is being launched, extending the company's range of drum and roll handling equipment.

This also includes a new stainless steel unit for GMP areas.
T: 01736 851050
E: sales@sts-trolleys.co.uk

SAIMO TECHNOLOGY*

Stand D81

Exhibiting for the first time, Chinese manufacturer Saimo Technology specialises in handling powder and bulk materials.

Equipment includes electronic belt scales, weigh belt feeders, weighing feeders, bulk proportioning systems, open-mouth packaging lines, valve bag packers, checkweighers and metal detectors, as well as loss-in-weight weighers.
T: 0086 516 8788 5618
E: liran@saimo.com.cn

SANDIACRE ROSE FORGROVE

Stand D56

Sandiacre and Rose Forgrove, both part of Molins Packaging

Machinery, are demonstrating stainless steel hygienic versions of their baggers and flow-wrappers.

From Sandiacre there is a TG250-RC high speed vertical bagger, fed by a high speed multi-head weigher, capable of producing bags up to 250mm wide at speeds up to 200 bags a minute. Features include product-in-jaw detection and automatic self centring for the film transport.

From Rose Forgrove comes the Merlin HSE flow-wrapper able to handle a wide range of products ranging from individual bars a few millimetres wide up to family cakes and pizzas 300mm wide and 160mm high.
T: 0115 967 8787
E: sandiacre.uk@molins.com

SATO UK

Stand E56

Sato is featuring examples of its range of thermal label printers and print-apply labelling systems.
T: 01255 240000
E: enquiries@sato-uk.com

SAUVEN MARKING

Stand B71

Coding and marking equipment from Sauven includes high resolution ink jet, contact carton printers and in-line flexoprinters

with disposable ink cartridges.
T: 01932 355191
E: sales@sauven-marking.co.uk

SCHUBERT UK

Stand G50

A robotic carton loading system that also uses further robots rather than the conventional chains to group products before transfer to the carton is being demonstrated by Schubert for the first time in the UK.

The high-speed TLM-F44 machine employs three four-axis robots to pick up to 600 chocolate bars a minute from the infeed conveyor and group them on an intermediate conveyor, creating a series of layers to be picked and placed into top load cartons by a TLM-F2 robot.

Cartons, which are erected on the machine from flat blanks, can also be closed by a further robot.
T: 01676 525825
E: contact@schubert-uk.co.uk

SEALPAC

Stand D50

Exhibits represent the Sealpac range of tray sealing machines for food such as meat, poultry, fish, salads, snacks, vegetables and ready meals.
T: 0118 977 3400
E: sales@sealpac-uk.com

SELECT SYSTEMS

Stand E37

Exhibits are taken from the company's range of coding and overprinting machines for cartons, sleeves and flat blanks, which can be fitted with ink jet, laser, thermal printers, and hot foil/ink coders, as well as label and card applicators.

The vacuum transfer system will handle blanks from 50 x 10mm to 400 x 300mm at speeds up to 180 a minute depending on size while the FF 100 friction feeder handles sizes from 60 x 30mm up to 1000 x 300mm
T: 01548 852855
E: phil@selectsystems.info

SELO BOLLANS*

Stand F100

Primary packaging machinery on display includes a Toyo four-lane liquid stick packer, Omori S5610A-BX inverted flow-wrapper for loose or sticky products, two tray sealing machines from Interpac and a SabalPack Lion vertical form-fill-seal packing line with multihead weigher and feed system.

There is also a semi automatic pouch filler and a spouted pouch filler-capper from Toyo Jidoki.

Quality control equipment is represented by an Anritsu X-ray inspection system and an Anritsu combination checkweigher and dual-frequency metal detector.

For processing, Selo-Bollans is showing the Selo high speed on-demand slicer-applicator and GMC rotary fresh meat dicer.

T: 0151 644 9393

E: info@selo-bollans.co.uk

SESSIONS OF YORK

Stand D45

Labelling equipment includes an improved version of Sessions' RC30 pressure-sensitive applicator for small cylindrical items and difficult-to-handle products such as vials, syringes, inhalers, pencils, batteries, tubes and lipsticks.

There is also the Sequence Total front-and-back labeller and the RCP64 print-apply machine, developed specifically to handle round containers from vials up to wine bottles.

The new Printer Laminator prints, laminates and cuts single labels in one pass.

Further exhibits are the new Basic 100/200 Total wraparound labeller, the TM100 table top conveyor and labeller, the Avery 104 label applicator and the Avery 924 print-apply labeller.

T: 01904 659224

E: machine.info@sessionsofyourk.co.uk



Silverson Machines: Flashmix powder-liquid mixer

SEW EURODRIVE

Stand C75

Drives featured include an extended range of inverters and new decentralised controls said to offer more intelligence and flexibility for applications, such as conveying, in which cost and space saving are crucial.

A new economic and compact drive inverter range, Movitrac B, is being launched while the SEW servo product range has been extended with the introduction of a compact range of servo motors, a servo motor with integrated ball screw, synchronous linear motors and extended ranges of servo gear units.

Further new products include the recently introduced Aseptic geared motor range for hygienic applications, Eff1 motor range, and TorqLoc shaft mounting.

T: 01924 893855

E: sales@sew-eurodrive.co.uk

SICK (UK)

Stand F96

On demonstration is the IVC3D, said to be the world's first industrial 3D vision system, suitable for high speed industrial measurement and shape inspection applications

The IVC 3D is available with

measurement areas of 150 x 50mm (with a resolution of 0.1 mm) or 600 x 200mm (with 0.5mm resolution).

There is also the IVC 2D vision system that not only measures geometries, but can also simultaneously recognise alpha-numeric data, enabling it to check sell-by dates and batch codes for the food, beverage and pharmaceutical industries.

The CVS range of vision sensors is typically used for detection and sorting tasks, by using colour or contour criteria and, with the addition of a version incorporating OCR capability, is said to offer a very low cost solution for printed date and batch code verification.

T: 01727 831121

E: info@sick.co.uk

SILVERSON MACHINES*

Stand B55

New products this year from Silverson include the L6R, its latest generation of laboratory mixers, said to offer a high level of instrumentation and automation via its digital touch screen. Capacity is 1ml to 12 litres.

Functions include timer and speed presets, ammeter and tachometer, providing repeatability when carrying out

QA testing and other repetitive tasks.

More than 40 interchangeable mixing units are available for the L6R, including sealed units, tubular assemblies for narrow necked or small containers, twin-headed Duplex Disintegrator units and a special in-line assembly.

Also on show is Silverson's new Flashmix FM30 powder-liquid mixing system.

T: 01494 786331

E: sales@silverson.co.uk

SMITHS DETECTION

Stand C105

The Eagle Pack X-ray machine inspects single food items, raw or packaged, to identify defects, missing items, or foreign bodies and is also able to monitor the shape, size, count and weight of the goods inspected.

Also shown is the Eagle Bantam, a compact system for inspecting pouches and bags.

Both systems are equipped with Smiths Heimann's X-ray inspection and signal processing systems.

T: 01923 294400

E: terry.woolford@smithsdetection.com

SOLLAS UK

Stand E75

The Sollas 20 overwrapping machine can be supplied with various feeding systems and is able to wrap products either as single packs or in bundles.

The machine is now used in many industries, including cosmetics, perfume, digital media, stationery, food, confectionery, tea, coffee, tobacco, pharmaceuticals and healthcare.

T: 01256 896930

E: sales@sollasuk.com

SOVEREIGN LABELLING SYSTEMS

Stand D35

Exhibits are taken from Sovereign's range of pressure-sensitive labelling machines,

shrink and stretch sleeves, rotary pick and place/de-nesting and friction feeding machinery.

T: 01206 304182

E: sovereign@sovereignlabellingsystems.co.uk

SPARC SYSTEMS

Stand E60

Checkweighers from Sparc are represented by the TS210, an IP65 machine for packs up to 50kg and speeds up to 350 a minute, and the TS310 DuoCheck combined metal detector and checkweigher, which is controlled from a single screen and available with ferrous, ferrous-in-foil and multi-product frequency detection options.

The Pakweigh carton weigher fits beneath existing roller track conveyors and provides accuracy of 1g in 50kg for diverse applications such as soft fruit packing, mail cost monitoring and bulk goods checking. Speed is up to 35 packs a minute.

Weighing equipment shown includes the Digiweigh CM linear machine for weights up to 1kg per weighpan and a 14-head multihead.

T: 01684 310000

E: sales@sparc-systems.co.uk

SPIROFLOW*

Stand F37

Exhibits are taken from Spiriflow's ranges of flexible screw conveyors, aero-mechanical conveyors, FIBC fillers and FIBC dischargers.

The flexible screw and aero-mechanical conveyors are said to offer simple, hygienic and easy to clean conveying for a host of products from free flowing salt to sticky lumps of broken chocolate.

Spiroflow's range of FIBC dischargers now includes nine types, ranging from simple bag support frames to advanced models offering total containment.

T: 01200 422525

E: sales@spiroflow.com



Sparc Systems: Weighing equipment includes a 14 head multihead

SPRINGVALE EQUIPMENT

Stand C55

Langenpac's new Vento continuous motion horizontal cartoning machine is being shown in the UK for the first time. Speed is up to 200 or 500 a minute depending on the carton feed arrangement.

The machine's frame consists of sealed cabinets front and back, housing the drives and the controls, joined together in an open construction that removes opportunity for dirt traps and allows any product and packaging debris to fall through to the floor.

Size changeover on this machine is said to be 5-10 minutes, using digital lead screws and a pre-sized template for the carton magazine. Both the product buckets and carton chain are driven by a single servo motor, reducing changeover time and the number of machine components required.

Details are also available on the new intermittent motion Breeze

cartoner, which shares a common machine frame with the Vento and gives speeds up to 80 cartons a minute.

T: 01420 542505

E: springvale@springequip.co.uk

SUGATSUNE KOGYO (UK)

Stand A30

Sugatsune is Japan's largest producer of architectural and furniture hardware and is showing examples of its Lamp brand, available in stainless steel for use in food processing, pharmaceutical and clean room applications or aggressive operating environments.

T: 01491 680737

E: sales@sugatsuneuk.com

SUNALA

Stand F15

A new version of the Sunala Pharmacarton coding station for in-line printing of lot, expiry, 2D codes and bar codes on pharmaceutical and medical cartons is being launched.

Codes are printed using the Wolke m600 thermal ink jet

printer – capable of resolution up to 600dpi – and then verified by an optical character verification system.

In addition, there is the Travtec TR-750 Speed-Feeder, which provides high speed feeding of carton blanks and blister cards for labelling, print-apply labelling and ink jet printing, and the Swiss-built Collamat modular label applicator.

T: 01942 674440

E: info@sunala.com

SUPREME PLASTICS

Stand D41

Pronova-Joker bag filling and sealing equipment can now handle an extended range of packs including those that require hermetic sealing, stand-up pouches and wet-wipe packs as well as laminate bags with gas barrier properties.

The Pronova machine works with a continuous chain of pre-formed bags which feature channels that allow the bags to run along two fixed guide rods, supporting and opening each bag at the point of filling.

Also on demonstration is the Reseal series of zipper applicators for producing reclosable flexible packaging on vertical and horizontal form-fill-seal equipment. These designs work with the company's narrow zippers, said to reduce material costs and give enhanced sealing, compared with standard zippers.

T: 01947 604161

E: info@supremeplastics.com

SURFACE HEATING SYSTEMS

Stand B110

SHS manufactures a range of specialist electrical heating products including trace heating cables, insulated heating jackets, drum and vessel heaters, heated panels and hoses and thermostats and controls.

T: 01592 205544

E: mick@shs-ltd.co.uk

**SYNATEL
INSTRUMENTATION**
Stand A92

Level controls, speed monitors, proximity sensors, digital counters and speed displays include the new Atex approved remotely calibrated Digimatic level control system.

This allows the probe and remote controller to be 100 metres apart while all calibration and adjustment can be carried out with no need for access to the probe. The unit is said to be ideal where accessibility, height, temperature or vibration prevents the use of a self contained version.

Also new is the Synatel range of in-line Atex approved junction boxes which provide a low cost means of extending sensor cables in hazardous areas.

T: 01543 277003

E: sales@synatel.co.uk

SYSPAL
Stand D80

The Modulus-T conveyor system is a modular design with three belt widths – 320, 420 and 570mm – available in lengths of 1-15 metres in 500mm increments.

Three standard leg options allow a range of heights to be provided, from 550 to 1250mm.

T: 01952 883188

E: sales@sypal.co.uk

TAWI UK
Stand G86

Lifting and load handling systems include the the Protema Easy Squeeze that lifts, transports and tilts drums. Fitted with a core gripper it will lift and rotate reels and rolls through 90deg.

There is also the new VacuCobra vacuum system that can grip, lift, rotate, or palletise packs up to 35kg and the VacuEasylift which can be jib or wall mounted and is capable of lifting most materials, sheets, sacks or cases up to 270kg

T: 01933 277260
E: sales@tawi.co.uk



Thermo Electron: PROx compact X-ray inspection machine

TECNO VIBRAZIONI
Stand C90

A new elevator-sorter from Tecno Vibrazioni is able to feed caps at speeds over 2000 a minute, and carries out the sorting function at floor level, replacing the cap sorter traditionally mounted on the top of the capper.

As a result, maintenance staff are able rectify feed problems caused by out-of-spec or rogue caps more quickly and without climbing.

The elevator-sorter occupies the same floorspace as the capping machine hopper it replaces and is also able to check for incorrect colours and missing or damaged wadding via a camera system.

When space around filling and capping lines is limited, the sorting system can be located at a distance, with orientated caps delivered to the capper via a high level covered conveyor.

T: 01509 813 401

E: info@tecno-feeders.co.uk

TENDRING PACIFIC
Stand D20

MAP and permeability testing equipment from PBI-Dansensor is on show including gas mixers with capacities up to 330 litres a

minute, on-line gas analysers for non-destructive testing on vacuum, tray lidding and flow wrap machines, portable headspace gas analysers and leak detectors.

T: 0870 240 1886

E: sales@tendringpacific.com

**THE FOOD
MACHINERY Co***
Stand A96

Recently appointed representative for Turkish manufacturer Kulp Makine, The Food Machinery Co is launching its range of depositors and labelling machines on the UK market.

The VD range of volumetric depositors covers deposits from 20ml up to 5 litres and can handle viscous products and products with particulates, typically in the food industry, while the D range will deposit liquids such as hair gel and hand creams, also up to 5 litre capacities. Single and multi head versions of both are available.

Further exhibits include examples from the Joni range of cooking kettles, Unikon utensil washers, and Feuma vegetable preparation machinery.

T: 01634 272345

E: sales@food-machineryco.com

**THERMO ELECTRON
CORP**
Stand E40

X-ray inspection units, checkweighers, and bulk weighing machines are shown. There is also The Spectra-Qua on-line constituent analyser, which provides continuous, accurate, real-time information on moisture and other critical product parameters by monitoring product content.

The recently launched PROx is a compact X-ray inspection machine capable of detecting metal, glass, stone, bone, plastics, wire and other dense contaminants in virtually any packaged, bulk flow or piped product.

Alternatively, the EZx X-ray system is said to offer the simplicity of a metal detector combined with the enhanced detection capability and sensitivity of X-ray monitoring. The machine is said to be particularly effective on lines running metallised film or foil packaging.

Also on display is Thermo Electron's range of GP checkweighers and the Ramsey Teorema checkweigher for cans, capable of handling 660 a minute.

Further exhibits include Ramsey loss-in-weight and volumetric feeding systems to control the flow of powders, pellets, flakes and granules.

T: 01788 820300

E: sales.wi.uk@thermo.com

TNA EUROPE
Stand F50

Two of the latest generation Robag 3 bagging machines are on demonstration.

The Robag 3 rotary triple jaw machine is equipped with a TNA 320 scale, and is capable of speeds in excess of 220 bags a minute while the Robag 3 stainless steel rotary double jaw machine is aimed in particular at salad leaves and fresh produce.

TNA is also showing its gateless Roflow horizontal movement conveyor, said to eliminate risk of product breakage and reduce maintenance and cleaning time.
T: 0121 628 8900
E: sales_euro@tnarobag.com

TRANSNORM SYSTEM
Stand C51

Conveyor systems specialist Transnorm is concentrating on the modular side of its business, including single belt and roller conveyors, chutes, powered spirals, mergers, diverters and sorting systems, all supplied as standalone items.

There are working examples of the TS1100 belt conveyor, the TS2100 powered roller accumulating conveyor, the new generation TS1600-105 belt turn and two units for which the company has agencies: the spiral chute and Ambaflex powered slat spiral.
T: 01684 291100
E: sales@transnorm.co.uk

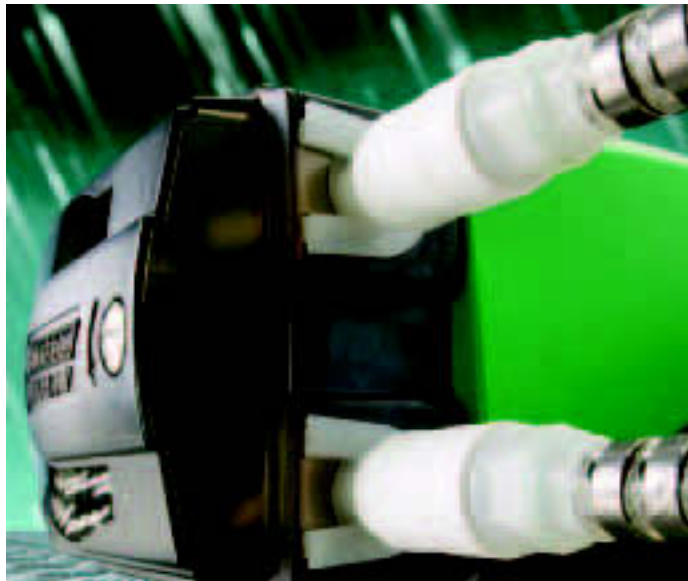
TURPINS PACKAGING SYSTEMS
Stand D110

Shrink sleeving specialist Turpins is featuring examples from the wide variety of sleeving problems solved by its Sleeveit application machinery, with case studies, samples and sleeve materials.

In particular, the entry model Sleeveit Lite tamper evident sleeve applicator and a new version of the budget sleeve label applicator, the SleeveMaster SL-F, will be on demonstration running at production speeds.
T: 01255 423402,
E: sales@sleeveit.com

TYCO THERMAL CONTROLS
Stand B95

Tyco's Isopad specialty heating products on show include heating cables and tapes, flexible heaters, jackets, silicone panels, heated



Watson Marlow: *Introducing the 520RE LoadSure range of peristaltic pumps*

hoses and heaters for drums, IBCs, hoppers, and conveyors.

Also available are controllers, sensors and laboratory heating products.
T: 0191 419 8200
E: info-isopad-GB@tycothermal.com

ULMA PACKAGING
Stand F40

Two machines are making their first appearance in the UK: the TF Supra Skin, a "competitively priced" thermoformer suitable for food, non food and medical products, and the Florida E, an electronic version of Ulma's existing Florida flow-wrapper.

In addition there is the Artic high speed MAP flow-wrapper, which employs a long dwell sealing head for hermetic seals, and the Etna Hi Tech vertical form-fill-seal machine.

This is shown creating multipacks of flow-wraps via a link to the Florida E flow-wrapper.
T: 01909 506 504
E: info@ulmapackaging.co.uk

UNITRAK POWDERFLIGHT*
Stand F101

The company's complete range of bulk materials handling equipment is on display including

aeromechanical and flexible screw conveyors for moving a wide range of free flowing powders, granules and blends.

In addition there is the TipTrak bucket elevator with interlocking buckets for spillage free operation and the Bagstander big bag discharger.
T: 01457 865038
E: info@unitrak.co.uk

UNIVERSAL FILLING MACHINE Co
Stand A65

Exhibits are taken from Universal's range of liquid filling and capping machines which extends from simple bench mounted single head units to fully automatic multihead systems.
T: 01233 643666
E: mail@universalfilling.com

VARIOHM-EUROSENSOR
Stand E120

The Variohm range of load cells is being featured and includes bending beam, shear beam and column versions, stainless steel and IP68 sealed models, as well as single point aluminium load cells.

Also included in the range is load cell mounting and instrumentation and digital display units.

In addition, Variohm supplies a wide range of different sensors to monitor force, position, pressure, temperature, torque and vibration.
T: 01327 351004
E: sales@variohm.com

VIDEOJET TECHNOLOGIES
Stand E71

Videojet is demonstrating its full range of coding and marking equipment including continuous ink jet, laser, large character marking and RFID systems.
T: 0870 240 5543
E: uksales@videojet.com

VOLKMANN UK*
Stand G39

Volkman builds a range of bulk materials handling equipment using vacuum conveying as the principal means of transportation. Sacks, drums, kegs, hoppers and IBCs, bulk bags and silos can be unloaded and any process station or vessel loaded.
T: 01494 512228
E: mw@volkmann-vacuum.com

WATSON-MARLOW BREDEL PUMPS *
Stand F21

The new 520RE LoadSure series of peristaltic pumps from Watson-Marlow provide pressures up to 7 bar, allowing the units to compete against mechanical diaphragm pumps in the chemical and food processing industries.

A key feature of the pumps, says the manufacturer, is that the tube element can be changed over in less than a minute, with no special skills required.

Further exhibits include the 620 series pumps, available in an IP66 washdown case and providing flow up to 18 litres a minute, as well as



the new 720 pump which is due to be launched in November.

This is said to offer a smaller footprint than other industrial pumps, while providing low shear and non-contacting pumping with minimal downtime. Output is up to 2000 litres an hour.

T: 01326 370370

E: info@watson-marlow.co.uk

WDS*

Stand E136

Exhibits are taken from the WDS range of stainless steel and plastic components for food processing and packaging equipment.

Most WDS components are available as 3D/2D CAD models on the company's web site (www.wdsLtd.co.uk), and can be downloaded free of charge.

T: 0845 606 6677

E: sales@wdsLtd.co.uk

G WEBB AUTOMATION

Stand E61

Exhibits are taken from the company's range of powder and granule filling machinery.

This includes systems for manually presented containers, sacks, bags and sachets, with dose weights of a few grams up to 40kg, and fully automatic filling systems for rigid containers, giving speeds from 50 to 500 a minute.

The equipment can also be integrated with unscramblers, cappers, vertical form-fill-seal machines and sachet machines.

T: 01684 892929

E: sales@

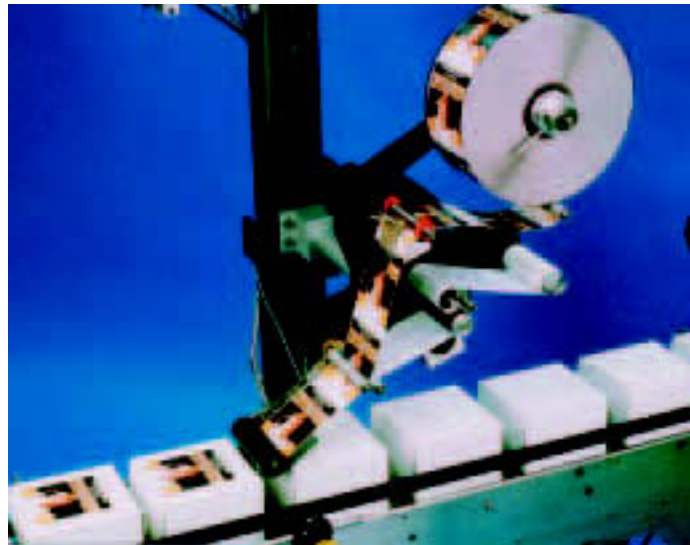
webbautomation.demon.co.uk

WEBER MARKING SYSTEMS

Stand F80

RFID-enabled versions of the Weber 5200 printer-applicator and Alpha 86 label applicator are now available and RFID smart label encoding capabilities have been added to Weber's Legitronic labelling software.

The 5200 print-apply machine is



Weber Marking Systems: The Alpha 86 pressure-sensitive labeller

said to offer a variety of features to ensure easy operation. Label position can be adjusted on the run and the applicator arms resets automatically after three seconds if there is a problem applying a label.

The Weber CO₂ laser coder range produces text as small as 0.020in high as well as numerous bar code symbologies and graphic images, at speeds up to 2500 items a minute.

T: 01875 611111

E: sales@weber.co.uk

WEIGHTRON BILANCIAI

Stand A51

The company builds a variety of weighing systems as well as liquid filling machinery and is featuring a selection from its range.

T: 01246 260 062

E: sales@weightroncb.co.uk

WEYFRINGE LABELLING SYSTEMS

Stand G57

The RTL pallet labeller introduced by Weyfringe can label one or two sides of a stationary pallet at speeds up to 20 pallets a minute.

It is equipped with a bar code reader to check for correct application and that the barcode is the correct one for the pallet. If an error occurs the RTL labeller can be set to re-print and re-apply

automatically up to three times, prior to issuing an alarm.

Control can be via a built-in keypad or remote from the user's packaging line control system. If standalone use is preferred, label designs and product databases can be held within the RTL print engine for recall.

T: 01642 490121

E: sales@weyfringe.co.uk

WINKWORTH MACHINERY*

Stand G1

Winkworth is showing an upgraded range of mixers aimed at reducing cost, floorspace and maintenance.

On display are Z blade mixers for heavy pastes and doughs, the RT mixer for powders, creams, pastes and slurries, a new roller feeder for handling viscous pastes, and a 120 litre processing vessel for sauces, creams and liquids.

T: 01189 883551

E: info@mixer.co.uk

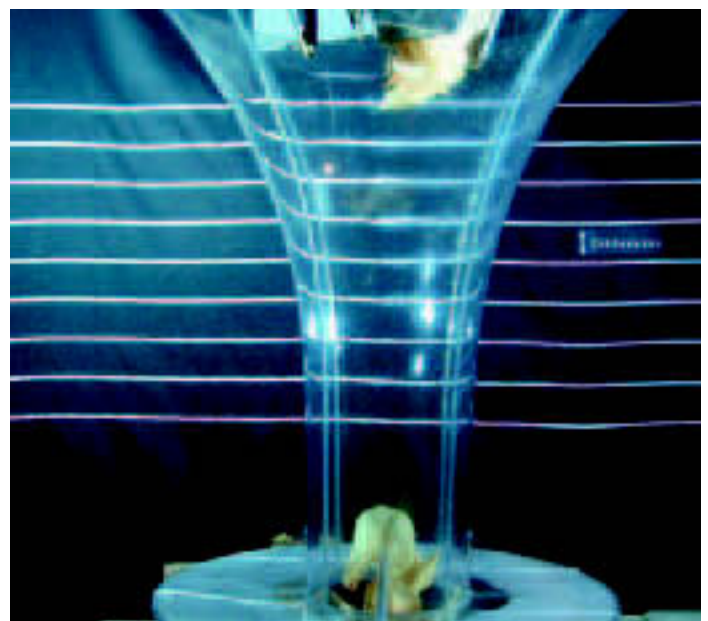
WITT GAS TECHNIQUES*

Stand G16

Gas distribution, mixing and analysis equipment for modified atmosphere packaging includes the new Leak-Master Inline, one of a series of detection systems that use CO₂ detection technology to find small leaks in both flexible and rigid packs within the food and pharmaceutical industries.

Conveyor based, the machine is synchronised with the packaging line for fully automated product feeding and is able to check for leaks on single packs, multiple packs and boxed items using an adjustable testing chamber. Speed is up to 15 cycles a minute.

Further exhibits include the portable Leak-Master micro-leak detection system, the Oxybaby V, a hand held gas measuring system, and a web I/O module that enables service engineers to receive



Yamato Scale: Sigma F1 multihead maintains wide separation between drops

e-mails automatically at remote locations should gas mixing problems occur on a line.

T: 01925 234466

E: info@witt.co.uk

WRAPS UK

Stand D91

Shrinkwrapping systems include the recently upgraded version of the W701-120 automatic L-sealer, now fitted with perimeter style high level guarding, an integrated colour touchscreen display as standard and improved film loading arrangements.

There is also the ASI60 entry-level twin reel sleeve-wrapper and the semi-automatic Kalfass KC5040 combined L-sealer and tunnel, said to offer a compact solution for medium speed duties.

T: 01202 861200

E: enquiries@wrapsuk.com

XACT PACKAGING & MARKING

Stand F128

This new organisation brings together the packaging and marking divisions of the Lawtons Group – PrePack Systems, Xact Coding & Marking and Packaging@Lawtons – to offer a complete packaging and marking solution from a single source.

Xact Packaging & Marking is now able to offer netting, flow and shrink-wrapping, and weighing systems alongside ink jet printing, thermal printing and labelling equipment.

T: 0151 479 3020

E: gary.harper@xactmark.co.uk

YAMATO SCALE DATAWEIGH (UK)

Stand F71

Yamato Scale Dataweigh is introducing the latest machine from the Sigma F1 range of multihead weighers.

The Sigma F1-II has 14 heads and uses 'bottom based handling' to deal with a wide range of difficult products at speeds up to

210 drops a minute.

Also on show is an example of the Sigma Compact Series, a high speed weigher for handling nuts, seeds and dried fruits at speeds up to 300 packs a minute, as well as the Alpha entry level model.

The Yamato FCP 550V case packer is on demonstration in a version particularly suited to handling salads.

T: 0113 271 7999

E: sales@yamatoscale.co.uk

YORKSHIRE PACKAGING SYSTEMS

Stand G70

Both fully automatic inline and side feed sleeve wrappers are on show as well as a YPS stainless steel shrinkwrapper for handling collations of bottles in various trayless formats at speeds up to 180 bottles a minute.

For high clarity presentation shrink-wrapping in polyolefin film, there is a YPS fully automatic L-sealer as well as a newly re-designed and improved high speed side sealer capable of speeds in excess of 60 packs a minute.

T: 01924 441355

E: enquiries@yps.co.uk

YTRON-QUADRO(UK)*

Stand B31

Best known to date for the Quadro Comil and vacuum transfer systems and Ytron mixing and powder incorporation devices, Ytron Quadro is extending its range.

New products include VMI Rayneri Trimix and Turbotest mixing systems, which extend from lab scale to large-scale vacuum mixing processes, and the Microfluidics Microfluidizer high-pressure emulsifier and homogeniser.

This produces ultra fine suspensions and emulsions using a fixed geometry interaction chamber.

T: 01494 792898

E: sales@ytron-quadro.co.uk



Deeper draws: New Pester blister packer for syringes and medical devices

PESTER PAC AUTOMATION

Blister packer is aimed at lower volumes of syringes, vials

A blister packer aimed at handling small to medium quantities of items such as ampoules, syringes and medical devices economically was unveiled by Pester, along with a new compact stretchwrapper and shrink tunnel.

The blister packer is based on a Multivac R140 thermoformer, brought up to pharmaceutical standards of validation by Pester, and allows draws up to 100mm to be obtained against the more usual 12-25mm or so of more expensive thermoformers designed principally for the solid dose market.

Speed is typically 100 syringes a minute, depending on pack size, with products picked from the infeed conveyor and loaded by a Pester PWR robot.

This works with an integral camera to allow products to be picked in any orientation and turned for accurate placement in the pockets, using vacuum grippers that continuously adapt themselves to the diameter of the syringes.

All usual thermoforming materials can be used and aluminium blisters can also be produced by the cold forming process. Lidding, which can be print registered, is in pet/pe film,

medical paper, coated aluminium and other heat sealable materials.

Pester's new Pewo-Pack 450 compact shrink/stretchwrapper – three of which have already been sold in the UK – is a balcony design and was shown set up specifically to create and handle a 5 x 2 collation of vials.

The Pewo-Pack 450 Compact will cycle at speeds up to 50 a minute, is completely servo driven, and can be adapted to handle both cartons or bottles as well as glass vials.

In particular, the machine employs automatic splicing for both top and bottom reels using a heat seal rather than tape, eliminating the need to reject packs that include a joint. There is also a knife edge conveyor between the collation point and entry into the film curtain, allowing packs to be carried through the machine without touching each other.

The shrink tunnel, a full balcony style machine, includes a window and mirror for packs to be monitored by the operator and includes moveable air vents to "tune" the unit to the shape of different packs.

T: 01344 751 646

E: pester-uk@pester.com



IMA

Modular aseptic filler and WIP tablet press

A modular aseptic filling system, an entry level vial labeller and a wash-in-place tablet press were among new product launches by IMA.

The MAC Modular Aseptic Compact System is an off-the-shelf package for aseptic filling that requires minimum customisation and so, points out IMA, reduces cost and lead time.

Incorporating a vial washer, depyrogenating tunnel, filling, stoppering and alu-capping operations in a single compact integrated system, the MAC is able to handle liquid, liquids for lyophilisation or powders within an isolated environment.

The approach is said to offer the reliability of a fully automated line in 20 per cent of the space.

The new tablet press is the Kilian Synthesis 500 WIP which is equipped for automatic washing

or wetting within the process area to reduce the risk to operators of airborne product when access to the machine is required for changeover.

Built with the process area completely separated from the mechanical parts, the machine is equipped with spray nozzles in each part of the process area and also inside the dust extraction ductwork to ensure complete coverage of all working parts.

The Synthesis 500 WIP, which carries 30-50 punches for speeds of 198,000 to 360,000 tablets an hour, is to be joined by a WIP version of the larger Synthesis 700 next year. This machine, offering speed in excess of one million tablets an hour, can also be set up to produce two-layer tablets.

The new labelling machine is the Sensitive Eco capable of handling up to 150 vials or bottles a minute.

Said to be particularly compact, the machine can be readily linked to

packaging machinery and up or downstream rotary accumulation tables.

For tamper evident sealing of capsules – containing either liquids or solids – IMA launched the new Hermetic machine which is available in two models: 50 and 100, reaching speeds of 50,000 and 100,000 capsules an hour.

Built on a balcony basis for good accessibility to all working areas, the machine is fitted with a fast fixing system for the sealing band, so avoiding risk of capsule deformation. The sealing and drying capsule transport plates carry a double row of capsules which reduces the parts to be



Wash-in-place: Kilian Synthesis 500WIP tablet press

changed and cleaned, minimising downtime.

Process equipment from IMA included the new Vortex 30 Plus high shear mixer-granulator for both wet and single-pot processes, arranged in a through-the-wall configuration if required.

Offering a bowl capacity of 36.5 litres, the machine is part of a range of nine models with bowl capacities up to 1455 litres. IMA says that the simple design of the Vortex Plus range provides a high material yield and allows maintenance to be carried out quickly.

T: 01189 772323

E: hotdesk@imauk.co.uk

MARCHESINI

Filler-capper for through-wall sterile operation runs at 400/min

Marchesini entered the sterile sector of pharmaceutical equipment with the new Steril 400 filling-capping machine suitable for installation within an isolator on a through-the-wall basis. Speed is up to 400 bottles a minute, with doses up to 30ml and bottle diameter up to 36mm.

The machine consists of three operating modules and is split into two zones, to allow access to drives and mechanical parts from the rear without disturbing the product area, which is under laminar flow.

Also, bottle conveying is such that there is no bottle rubbing and therefore no particles formed, points out Marchesini.

Filling is carried out using piston type rotary pumps, eight in the standard version, or up to ten on request. Each pump consists of two parts and can be completely disassembled, for sterilisation in an autoclave.

Each filling valve-piston is also driven by a brushless motor, for independent and precise adjustment of the dosing volume. In addition, the capping turret, the cap loading system and the vibrating base are equipped for automatic height adjustment.

The machine is set up for installation of a statistical checkweigher, with a robotic bottle pick-and-place device and



Sterile filling: Marchesini's new Steril 400 filling-capping machine

feedback for automatic adjustment of the volume dosed.

Also introduced was the Robovision feed unit. This four-axis robot with carbon fibre limbs and an integrated vision system was developed to pick loose items from a conveyor and place them in the infeed buckets of a continuous

motion cartoner at speeds up to 100 cycles a minute.

Random orientation items can be accepted, with the vision system allowing the robot to turn each product into the correct position for loading.

T: 01525 216201

E: sales@marchesini.co.uk

Pharma industry takes the role of Technology driver

EVERY INDUSTRY SEEMS TO HAVE A SECTOR THAT DRIVES TECHNOLOGY CHANGES FOR THE BENEFIT OF EVERYONE. IN THE AUTOMOTIVE INDUSTRY THE DRIVER IS FORMULA 1 RACING AND IN THE AIRCRAFT INDUSTRY IT IS THE SPACE PROGRAMME. IN LIQUID FILLING THE PHARMACEUTICAL INDUSTRY IS NOW THE INSPIRATION FOR CHANGE. REPORT BY MARTIN KEAY.

On the face of it, you might think the drinks industry is driving technology changes in liquid filling, since this is where machine speeds are highest, with canning lines running at up to 2000 a minute. But right now that's not so. The industry sector most actively driving developments in filler design and feeding new ideas to other industries is the pharmaceutical industry and its very close cousin the 'technical' cosmetics industry.

The reasons are directly comparable to Formula 1 and the space programme.

When very high value products are to be filled, small improvements in filling performance and accuracy justify a significant increase in the machine price, but the value of soft drinks is so low that there is no similar incentive to change the technology.

Even so, developments in the pharmaceutical industry are not just about accuracy of fill. Ensuring that a product has been correctly filled and sealed in sterile conditions has led to the development of isolation technologies that are now finding their way into the dairy and drinks industries for products such as milk and soft drinks.

Restricted Access Barrier Systems (RABSs) are a well established technology in the pharmaceutical industry, but have now proved the ideal solution for aseptic filling problems in the dairy and soft drinks sectors. Here, traditional methods of isolation were resulting in low air renewal rates in the enclosure, turbulent and uncontrolled airflow, and difficulty checking sealing quality, which all led to the need for frequent operator interventions and sterilisation cycles.

French filling machine specialist Serac has now adopted RABS in its latest range of aseptic filling machines, which are called SAS3,

for Serac Asptic System, third generation.

In contrast to a standard isolator, the RABS is not hermetically sealed but is an air barrier produced by positive overpressure inside the enclosure that protects the sterile area. Air is continuously circulated and renewed via a vertical unidirectional speed-regulated airflow.

Combining both these techniques eliminates the particles present in the enclosure and also protects against external contamination. By avoiding containment, the continuous air circulation extends duration of the aseptic state and, says Serac, provides up to 72 hours of non-stop production without the need for intermediate decontamination.

Surrounded by barrier zones

The sterile area is surrounded by barrier zones that are also subject to uni-directional airflow. These act as an additional protective envelope between the enclosure and the rest of the plant and make cleaning and maintenance operations on the machine easier.

The heart of the machine – the sterile enclosure – can only be accessed in production via glove boxes placed at critical locations along the filling line. However, all the other points – treatment, line input and output – can be reached via external doors with no need for operators to wear clean room clothing. All access into and out of the barrier zone is monitored and recorded to track operations.

The origins of this new type of RABS isolator stem directly from the pharmaceutical industry. Indeed to design the isolator for the SAS3, Serac says it drew inspiration from the definition given by the ISPE (International Society for Pharmaceutical Engineering) for the FDA.

This definition concerns seven criteria: solid partitions, providing a physical separation

between production and the operators; uni-directional airflow (ISO 5); gloves or an automation system to avoid access when filling; an equipment transfer system to avoid exposure to less clean environments; high levels of surface disinfection; ISO 7 environment class; and, finally, rare interventions to be followed by decontamination, doors to be locked and monitored, positive overpressure and ISO 5 environment class.

In filling terms, the SAS3 is said to be particularly versatile and offer speeds up to 50,000 plastic bottles an hour. A container neck transfer system also means that format changes can be carried out quickly with no need to access the sterile area.

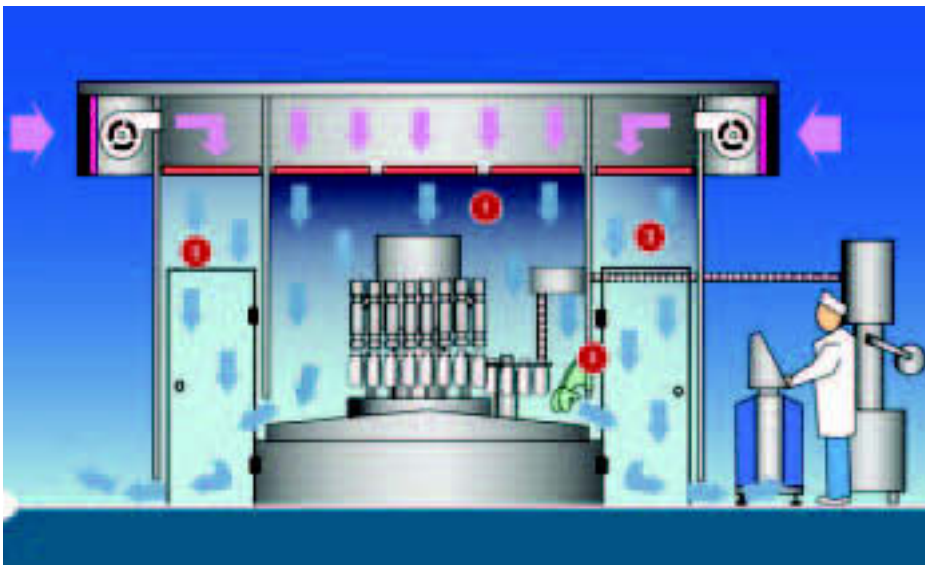
But the exchange of technology between the pharmaceutical and drinks industries is not just one way. Automatic inspection for damaged bottles, short fills, incorrectly torqued caps and correct labelling has been a feature of high speed bottling lines for many years, but is now becoming the norm in pharmaceuticals and the 'technical' and more demanding sectors of the cosmetics industry. The need for validation of high value and sensitive products is requiring the use of technologies that in other industries would only have been justified on a high speed line.

Difference less obvious

Indeed, according to Springvale Equipment, which represents Serac's Barcelona-based cosmetics/pharmaceuticals division in the UK, the company is finding that the difference between filling pharmaceutical products and filling new 'technical' cosmetic products is becoming less obvious. Options such as detecting incorrectly placed caps by vision system, torque checking and rejection of out-of-torque caps,



RABS for aseptic filling: Above: Serac has applied pharmaceutical industry RABS technology to the drinks industry, offering 72 hours continuous production with no need for intermediate decontamination. Below: The concept: 1: Sterile area. 2: Barrier zones. 3: Glove boxes for access to sterile area during operation



and Ethernet connection to export data, are being requested by both industries to minimise the risk of out-of-tolerance containers reaching the market place.

A particular niche area for Serac has been filling-capping machines for oxygen sensitive cosmetics packed in an 'airless' environment using Airless Systems' dosing heads and Valois pumps. Filling and capping takes place under a vacuum to prevent bubbles being trapped in the product during filling followed by nitrogen purging between filling and capping. Plugging, crimping and capping also takes place under vacuum. Speed is up to 60 a minute for containers up to 250ml.

As most of these high quality cosmetic containers are unstable the machines usually

incorporate a puck system and neck locator device to position the container or puck under the filling nozzles.

Filling method

It is often said, but worth repeating, that there is no one ideal liquid filling technique. They all have their advantages and disadvantages and so the choice should depend on the nature of the product, the volume of fill, the type of container being filled, speed of fill and the cleaning or sterilising requirements of the product.

So level fillers are the preferred machine in the soft drinks and brewing industries but are considered too inaccurate for oils and also unsuitable for creams, pastes and products with particulates.

Volumetric piston fillers have the merit of being able to fill a very wide range of product types accurately, from thin liquids to thick pastes and products with particulates, but are slow by comparison with level fillers, have lots of moving parts and are difficult to clean in comparison with other types of filler.

Weigh fillers have the advantage that there are very few parts in contact with the product and so are easy to clean and lend themselves to both small and very large fills. But on the minus side their load cells and electronics make them quite complex.

The new kids on the block are the flowmeter fillers which have the advantages of the weigh fillers with few moving parts and without the complication of the load cells. However, induction flowmeters are only suitable for aqueous and largely uniform products.

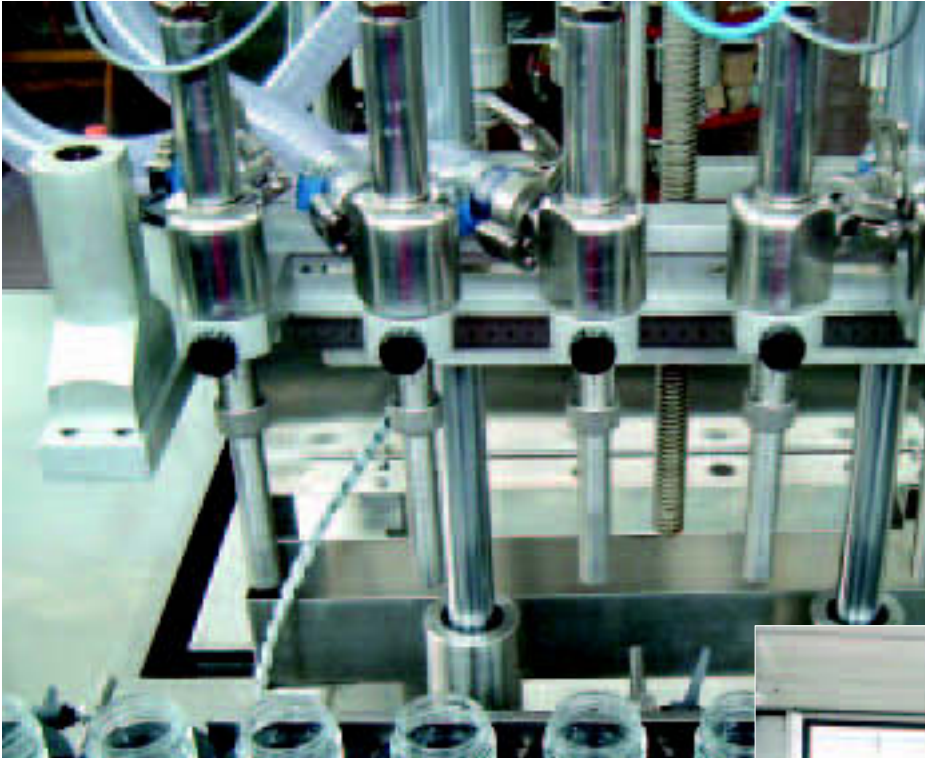
Mass flow meters are an alternative to induction flowmeters that do not depend on the product being aqueous or uniform, however the product contact area is greater than induction flowmeters and weigh fillers.

In applications where only one product is being filled the task is simply to identify the most suitable filling method for the product, but on lines that have to fill a range of product types, as is often the case in the pharmaceutical or cosmetics industries, this presents a dilemma. Do you choose a filling method such as volumetric piston filling that suits a wide range of product types and accept the longer downtimes for cleaning, or do you choose a filling method such as flowmeter or weigh filling that minimises the CIP or SIP issues but does not give ideal filling accuracy on all products?

Of course the ideal solution is to have separate filling heads for each product type and this is the solution offered by Italian manufacturer Omas, represented in the UK by Excel Packaging Machinery. The Omas Total modular filling line can be equipped with a variety of different filling heads which can be moved into position on the filling line as required, to fill products varying in consistency from thin liquids to thick pastes, but making use of the same container handling equipment.

The machine was launched in the UK at last year's PPMA show and, says Excel, has proved particularly successful.

The Total filler can be supplied with a range of roll-up units to suit the customer's products and containers. The docking filling unit fits onto the base machine allowing the user to choose from volumetric, hot filling, gear pump,



Interchangeable filling method: Omas Total filler employs a series of roll-up filling units

vacuum, peristaltic and flowmeter filling modules all of which fit onto the same base unit.

The docking station uses servo motor drive with ball screw control of the diving nozzle system although other options include a mechanical cam or pneumatic nozzle lift. Volume adjustment on each roll-up unit is tool free and there is a CIP facility, although the complete filling system can be simply removed for off-machine cleaning.

Volumetric piston fillers

With the advent of weight and flowmeter fillers you might have thought that volumetric piston fillers would be in decline, but far from it. The piston filler remains popular not just because of its ability to handle a wide range of products but also because of its relative simplicity, reliability and high accuracy of fill.

For example, Premier Foods, Histon, has installed a 30-head rotary piston filler from Planet Flowline to handle preserves in jars up to 2lb at speeds in excess of 450 a minute. The machine was integrated into an existing line and close coupled to a glass jar inverter-rinser, which is driven by the filler itself.

Several jar sizes of different diameters and shapes are being filled. However, changeover can be carried out quickly since the infeed scroll need not be replaced and each filling station has adjustable pincers to hold the jars, eliminating size parts. Just as convenient, fill-

ing carousel height and fill volume are automatically adjusted by calling up the product/ container code from the operator touch screen. The valves themselves can fill homogenous products and also jams and marmalades with fruit particulates.

At Premier Foods' Bury St Edmunds site, another 30-head piston filler has been delivered by Planet Flowline for handling sauces, along with two vacuum fillers for use on pickle lines.

Edible oil has proved to be a major market for Gravfil's latest Excel in-line volumetric fillers, although the machines are suitable for a wide variety of liquids and container shapes as a result of being equipped with liquid flow regulation and a variable speed profiled filling rate.

Available with up to eight heads, three frame sizes and with four dosing cylinder capacities from 300 to 5000ml the Excel design is said to allow custom machines to be assembled readily to suit most products and industries including food, toiletries, healthcare

products or pharmaceuticals.

At the heart of the Excel design is the liquid flow regulation system and variable speed facility that drive the dosing pistons.

Handling foaming liquids

This provides reduced pressure throughout the entire filling cycle to handle liquids with a tendency to foam and allows tapered or stepped containers to be filled at full speed until the reduced profile poses risk of turbulence and cavitation in the liquid. At this point the fill rate is slowed, avoiding risk of air entrapment – particularly in oil-based products – and preventing spillage.

Output from the Excel depends on product type and fill, but is typically 80 a minute from an eight-head machine dosing 300ml. Accu-



No sizeparts: Thirty-head piston filler from Planet Flowline

racy is to better than ± 0.25 per cent of dosing cylinder capacity, for edible oil an accuracy of 0.1 per cent is said generally to be achieved.

Unlike most volumetric fillers, the Excel is able to handle foaming liquids without the need for dipping nozzles to provide a bottom-up fill, says Gravfil. This, the company claims, is the result of a filling nozzle design that gives turbulence-free flow for foam-free top filling and therefore reduced cycle times.

DIARY DATES

sponsored by



18-20 September: Taropak packaging technology and logistics show. Poznan, Poland. Details: www.taropak.pl/en

26-28 September: The PPMA Show 2006. NEC Birmingham. Details: www.ppmashow.com

26-28 September: Fachpack packaging and labelling exhibition. Nuremberg. Details: www.fachpack.de

3-6 October: Macropak, the Dutch packaging show. Utrecht. Details: Overseas Trade Show Agencies, tel: 020 7886 3000.

3-9 October: IBA 2006 bakery trade exhibition. Munich. Details: www.iba.de

12 October: PPMA Seminar: Update on the Provision and Use of Work Equipment Regulations (PUWER). Northampton. Details: John Cowdrey: 020 8773 8111, john.cowdrey@ppma.co.uk

18 October: PPMA Seminar: One pot pharmaceutical processing techniques. Liverpool. Details: John Cowdrey: 020 8773 8111, john.cowdrey@ppma.co.uk

24-27 October: Scanpack packaging machinery and materials show. Gotenborg. Details: www.scanpack.se

29 October-2 November: Pack

Expo exhibition. Chicago. Details: www.packexpo.com

2 November: PPMA Seminar: Future uses of robots in the processing and packaging industry. University of Warwick. Details: John Cowdrey: 020 8773 8111, john.cowdrey@ppma.co.uk

15-17 November: Brau Beviale beers and soft drinks industry exhibition. Nuremberg. Details: www.brau-beviale.de

20-24 November: Emballage 2006 packaging machinery and materials show. Paris. Details: www.emballageweb.com

2007

14-15 February: IPOT - imaging, photonics and optical technology, machine vision and displays technology show. NEC Birmingham. Details: www.ipot.co.uk

14-15 February: Machine Building, Drives and Automation show. NEC Birmingham. Details: www.machinebuilding.co.uk

18-21 March: Pro2Pac food and drink processing and packaging exhibition. ExCel, London. Details: www.pro2pac.co.uk

15-18 May: Total Processing and Packaging Exhibition. NEC Birmingham. Details: www.totalexhibition.com



NEC, Birmingham, UK, February 14 & 15, 2007

www.ipot.co.uk



LIQUID FILLING

Still with piston fillers, a recent installation made by Serac at Spanish cosmetics company Laboratorios RTB, Barcelona, for the Lida range of personal care products, shows how an in-line system can provide a particularly high level of versatility in handling products with varying viscosity and composition. Creams, shampoos, and gels are filled in nine different types and sizes of containers with eight different types of closure and the machine also meets Atex standards for handling products containing alcohol.

The Cronos machine supplied by Serac is in fact a combination of two other Serac machines: a Hera in-line filling machine and a Gaia multi-station capping machine linked with a closed-loop conveyor system.

For reduced changeover times the containers are handled in adjustable pucks that can be quickly adapted to the shape and size of the next product while machine settings are pre-programmed with, for example, filling nozzle speed and stroke selected and adjusted automatically from the control screen.

In addition, points out UK representative Springvale Equipment, the machine employs seal-less filling cylinders which can be cleaned and sterilised without being removed.

Weigh filling

Weigh filling has proved popular in the dairy and oil industries, but for different reasons. In the dairy industry the attraction of weigh filling has been the minimal product contact area which makes the fillers particularly easy to clean and sterilise, coupled with the ability to change from filling a 1 pint bottle to an 8 pint container at the press of a button and fill both with equal accuracy.

In the oil industry the attraction of being able to fill 1 litre and 5 litre containers on the one machine has been linked with the fact that filling by weight is the ideal method of filling oil which varies significantly in volume with temperature.

For example, the OCME range of Libra R5 rotary weight fillers is able to handle viscous liquids such as detergents, petrochemicals and edible oils at speeds from 3600 to 60,000 containers an hour, running with plastic, glass or metal and with capacities from 50ml to 5 litres. All electronic components are placed above each filling head and each circuit board is located on the outer part of the header tank for easy access.

The new filling nozzle, with external valve



Versatility: Serac Cronos filler handles variety of containers for Laboratorios RTB with (below) adjustable pucks

actuator, has pneumatically operated actuators for two-stage filling – coarse and fine fill. The nozzle is in fact equipped with a concentric aperture that allows additives such as perfume or colour to be dosed simultaneously with the main product or for two products to be filled at the same time.

Another useful feature is that the filler can continue to operate even if one of the load cells goes down. The double infeed worm screws have independent drives, which means that the operator can simply bypass the faulty load cell until maintenance can be arranged.

OCME's range of fillers also includes Libra R30 rotary weigh fillers for pails and small drums of 20-30kg, the Libra LT 300 in-line weigh fillers for large drums up to 200kg, the Lynx in-line and rotary volumetric fillers for viscous liquids and Hydra fillers for beverages such as mineral waters, soft drinks and spirits.

Induction and mass flow

Flowmeter filling is now a well established technique offering significant advantages in key areas of liquid filling. The low product contact area of the induction flowmeter filler is not only finding applications in situations where the machines require frequent cleaning or ster-



ilising, but also in applications where the nature of the product means that conventional product contact materials such as stainless steel cannot be used. So, when filling products such as bleach or other corrosive chemicals it may be necessary to use PVC or glass product contact parts.

For example, Italian manufacturer Marin, represented in the UK by Excel Packaging Machinery, builds a range of in-line mass and inductive flowmeter machines in four, six and eight head versions for use in the detergent, cosmetics, oils and liquid chemicals industries. Fills are from 50ml to 200 litre and PVC and glass contact parts are employed for filling acids and bleach.

Another interesting development is that the rotary flowmeter filler is increasingly being seen as the ideal machine for contract packing companies who can be called upon to fill a wide range of products in a diversity of container shapes and sizes, at a moment's notice. This is



Flowmeter filling: The heart of the new Nufarm line is an eight-head Masterfil machine

because of the ability of flowmeter fillers to fill a wide range of volumes at the press of a button.

This concept has been developed by Italian manufacturer Ronchi – represented by Propack Automation Machinery – based on the Exacta flowmeter filler which is available as a stand-alone machine or monobloc with the servo capping system.

While these machines are relatively small, the entry level machine is capable of outputs up to 120 bottles a minute on a 300ml fill and larger machines with up to 60 heads give line speeds exceeding 500 containers a minute.

Indeed, Propack Automation says that the Ronchi RX entry level eight head filler is ideal for contract packers seeking to compete with branded manufacturers' costs on short product runs. "The RX combines the advantages of flowmeter technology and the rapid set up of a rotary machine in an affordable standard unit," the company states.

A variety of container sizes are also handled by an in-line flowmeter filler installed at agricultural chemicals manufacturer Nufarm at Belvedere, Kent, which last year brought its packaging in-house with a £1.2 million investment in a new automatic filling line.

This is capable, ultimately, of handling some 20 million litres of herbicide a year should the company eventually opt for three shift working. In the meantime, the line is on single shift and on schedule to pack some 6 million litres in its

first year of operation, from an area of just 25 metres x 25 metres. Only three operators are required.

Central to the line is a purpose-built Masterfil eight head mass flowmeter filler, chosen for the intrinsic accuracy of flowmeter machines, ease and security of cleaning, and the capacity to handle a broad range of container sizes, from 1 to 20 litres.

Reliable form of measuring

"Bringing all packaging in house gives us better control of quality and logistics," explains Phil Dickinson, formulation manager at Nufarm's Belvedere plant. "Mass flowmeters are used elsewhere on the site and we find them to be one of the most reliable forms of measuring available. Cleaning is also very secure, since they are based on a straight through tube."

He adds: "Flowmeter filling means we have been able to set ourselves tighter tolerances than legislation requires." For example, although average weights legislation demands no more than a $\pm 150\text{g}$ tolerance on a 10 litre container, Nufarm says it is able consistently to obtain considerably higher accuracy.

The new line was designed and supplied by Masterfil and runs down three and a half sides of a refurbished 25 x 25 metre building. It extends from a pallet lift and infeed table for the containers, stretch sleeving, filling, capping,

LIQUID FILLING

labelling, checkweighing and induction sealing through to end-of line case-packing, palletising and pallet wrapping. Speed is 14 containers a minute for 20 litre jerrycans through to 40 a minute for round 1 litre bottles. Other sizes handled are 5, 10 and 15 litres.

With minimum space available, and little or no room for accumulation between the various items of machinery, start and stop queuing and control of container flow has been crucial, as Phil Dickinson explains.

"There is less than a metre between some machines, yet when the line is working on 20 or 15 litre containers – which have the same footprint – we're looking at controlling a block of eight containers 2.4 metres long. In spite of the space restrictions, Masterfil has provided an excellent means of controlling the line, which we can set up to optimise production on the different size containers."

Level filling

Level filling is the oldest filling method, but as with volumetric piston filling, it is still largely favoured in specific market sectors. For instance, in the wines and spirits industry vacuum level filling is still the preferred filling method, not least because when products are sold in a translucent bottle consumers expect all to be filled to the same level and will reject a bottle with a lower level than others on the shelf.

Stork Bottling Systems is one of the leading manufacturers of filling machines for the spirits industry and has concentrated development work not only on the fillers themselves but on the filling valve and designing a considerable number of measures to reduce alcohol losses.

The latest generation of air return tubes in Stork valves results in faster filling times and increased cleanability. In addition, they can be mounted and dismantled without tools or put into existing vacuum fillers as retrofits. Also, a hood is provided over the air return tube with an insert to prevent any glass particles from entering the product within the filling bowl.

All the capping options

Of course the complexity of liquid fillers does not end with the filling machine. Most rotary fillers are now supplied in monobloc form either mechanically or electrically synchronised to a capping machine and in some cases to a rinser.

The range of closures in use is always increasing, again particularly in the pharma-

ceutical and cosmetics industries where the choice can include screw caps, push-on caps, aluminium ROPP caps, droppers, reducers, pumps and dip tubes.

For instance, IMA has developed its F800 series of pharmaceutical industry high speed fillers and cappers to provide output up to 27,000 bottles an hour with up to 24 filling heads and 10 closing heads. Dosing volume can be set up to 1000ml.

Thanks to a modular design, the closing turrets can be equipped with various types of closing heads for all types of closures, such as screw caps, push-on caps, aluminium ROPP caps, droppers, reducers, pumps, and dip tubes typical of pharmaceutical applications.

The closing turret can also be equipped with brushless motors on each individual capping head to allow orientation of push-on caps and torque control during the tightening operation with monitoring of the force applied to each single bottle. Automatic adjustment of dosing and closing turret height by means of servo motors is also available.

Depositors

There is a fine distinction between a filling machine and a depositor, indeed the same machine can be sold as a volumetric piston filler and as a depositor. The essential difference between a depositor and a filling machine is what happens to the product after it has left the machine. The assumption with a filling machine is always that the product will go into

some form of container whereas with a depositor the product may be going on to a baking tray, a pizza, cake or a plate of food, or into a pie, a baking tin or a ready meals tray.

Another difference between depositors and fillers is that while with a filler the object is simply to get the product into the container as quickly, cleanly and accurately as possible, with a depositor the shape of the product or the way that it is placed may be much more important than other considerations.

This is the case with a range of decorating heads now available from Turbo Systems for its D150 depositor, aimed at the confectionery industry for simultaneous multi-filling of small quantities of ingredients.

Types of ingredients include chocolate, caramel and fondant, while typical applications include warm chocolate filling centres and tempered liquid chocolate. The heads have twin skin jackets and are capable of circulating warm water to keep chocolate and other fillings flowing freely.

Capable of depositing up to 24 fillings simultaneously, the decorating heads operate at speeds up to 25 cycles a minute and are available in a range of variants, including decorative print heads, star tube print heads, rotating heads, shower nozzles, multiple outlet rotary spade nozzles and heated jacket nozzles.

Raque Food Systems supplies depositors able to handle products ranging from thin fluids to chunky pastes and aerated materials using different valves to suit the application, for exam-



Pot filling: Packaging Automation's latest Starwheel machine is capable of 100 a minute



Multilane rotary: Waldner rotary eight-lane machine for filling and lidding aluminium cups

ple a wide spread for gravy or precise location for cream or butter. The standard machine is fitted with a newly designed diaphragm valve which is said to give a particularly clean deposit of these liquids, essential for avoiding contamination of the container flanges.

The machines are designed with an angle of 135deg, rather than 90 deg, between the dosing cylinder and horizontal delivery, so providing gentle handling of all types of product.

Cup filling equipment

When the term 'rotary filler' is used in most areas of liquid filling it usually implies a machine with several filling heads that rotate with the containers on a carousel to produce a higher output than a machine where the filling head is fixed and products are fed to the filling head or heads intermittently, generally known as an in-line machine. So a rotary filler will almost always be faster than an in-line filler.

However in the field of cup filling, rotary machines are often the slower machines with one or two fixed filling heads and the rotating mechanism used to move the cup under and then away from the filling head.

So in-line cup fillers, with several lanes of cups being filled at the same time, are often the higher throughput machines. Even so, rotary machines are sometimes equipped to handle multiple lanes, significantly improving speed from what usually remains a relatively small footprint.

Packaging Automation's latest Starwheel rotary machine can be supplied in either a single or a double starwheel format and can achieve speeds up to 100 pots a minute. Specifically designed for rigid walled and non de-nestable containers the machine is used by dairy companies, as well as for mineral waters, fruit juices and sauces, vodka shots, sandwich fillings, clotted cream and baby foods.

Outside the food industry the machine is being used for products such as cosmetics, household cleaning fluids and jewellery polish. Size range is 30-102mm diameter and 20-110 depth while closure options include film feed, pre-cut diaphragms as well as clip-on overlids.

Meanwhile German manufacturer Waldner recently launched a new entry level Dosomat rotary machine for soup, petfood, salads, dairy products, cosmetics and confectionery.

LIQUID FILLING

Mechanically driven, the machine can be uprated in the field with secondary fillers or lidding stations.

At the other end of the scale, the Waldner Dosomat multi-lane 16AS is able to provide outputs up to 500 a minute and is available with hydrogen peroxide pot and ultra-violet lid sterilisation. All equipment, linear or rotary, is available either fully mechanical, servo-mechanical or completely servo, depending on customer requirements.

High speed in-line

Waldner's most recent in-line machine was developed for Kraft General Foods to provide output of 72,000 an hour for liquid coffee and chocolate as well as powders: tea and freeze dried coffee. The machinery offers on line checkweighing with a trend facility, gas flushing and a no-cup/no-fill arrangement.

At the same time, Del Monte in the US has just installed the largest linear pot filler produced by Waldner. This has 24 lanes, multiple filling stations for fruit pieces and a brim-full fill of fruit syrup, and is producing retortable packs of Fruitini at 72,000 an hour.

From Grunwald, Germany, comes the

Combiflex in-line machine, the first from the company to be capable of filling both cups of different shapes and sizes and buckets – with or without handles – up to 1.5kg. Automatic press-button format change replaces time-consuming exchange of cup slats or cup rings.

The speed of the Combiflex is 40 cycles a minute and the dosing range is 20ml to 1.7 litres, depending on the filler chosen. It can be supplied with up to five lanes and with a double advance feed to provide speed up to ten containers per cycle. ■

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Containers and utensils seek the Optimum wash

SEEKING THE OPTIMUM WASHING PROCESS FOR CONTAINERS AND UTENSILS OFTEN MEANS INCREASING HYGIENE LEVELS BUT CAN EQUALLY INVOLVE AUTOMATION AND AN EXTENSION OF HYGIENE CONTROLS.

Getting the best from washing, rinsing and cleaning processes – ‘optimisation’ of the procedure – is most likely to mean increasing the hygiene levels achieved and ensuring they are consistent. Particularly with utensils, this could include spotting and eliminating any potential traps for dirt or germs.

But in some situations, ‘optimisation’ can mean, for instance, using effective air cleaning rather than a wet process, automation for health and safety reasons or the extension of hygiene controls to include all items entering a high-risk area.

Indeed, for contract fillers the optimum washing or rinsing cycle on one container may be very different to another.

For example, Italian manufacturer Ave Industries says that while most of its rotary bottle rinsers – around 80 per cent – are still sold with manual changeover of the treatment time, the remainder offer motorised adjustment, increasing or decreasing the angle of the tube bracket to vary the rinse time from under 2 seconds to 6 seconds. This can be followed by a specified ‘dripping’ time.

According to sales manager at Ave in Italy, Gherardo Giachetti, the motorised alternative is common where a number of different containers are filled, where the filler forecasts sufficient time, and therefore cost savings, and especially where the rinsing operation is part of a high-speed line with, say, 80 or 90 heads.

A longer rinsing time variant might be necessary to meet the hygiene standards of particular customers. “It may be that the plant has been audited, and requires the option of a higher hygiene level,” Mr Giachetti explains. “Someone like Coca-Cola may have stipulated a higher specification.”

Apart from the rinsing times themselves, machinery manufacturers such as Ave offer different cleaning technologies to suit particular product and supply chain needs. Air clean-

ing is commonly used where products, such as spirits or those containing oil, are incompatible with water residue.

There are also numerous wet-rinsing options, including standard water – hot or cold – filtered water, sterile water or a solution of water and a sterilising agent. Where an aggressive sterilising agent is used, Mr Giachetti points out, a double rinsing will be required, just as on an aseptic line. Rinsing in an aggressive solution is followed by a second stage of rinsing in sterile water.

Recycling of the rinsing medium is always an option, and this is more likely to be the case where the product itself is used, such as whisky.

In fact, the effectiveness of washing systems is currently being tested by the increase in demand for returnable bottles, especially on mainland Europe. When Dutch brewer Bavaria NV decided to replace its 30-year-old bottle washer on a returnables line, the new machine developed in conjunction with Krones, and shown at last year’s Drinktec, demonstrated just how far technology had moved in the interim.

Level of cleanliness

Clearly, the paramount concern was the level of cleanliness that could consistently be achieved on the returnable glass bottles. But at the same time, Bavaria managed to cut operating costs by reducing energy, water and chemicals consumption, as well as operator involvement.

The Lavatec KD 2005 consists of three sec-

tions: the pre-cleaning area for removing coarse dirt; the caustic-cleaning section for removing labels and killing off any germs; and the rinsing and discharge area, where all traces of caustic are removed.

Discharge most important

Henk van Kamp, project manager at Bavaria’s Lieshout plant, says: “When it comes down to it, the discharge section is the most important part of a bottle washer. If the bottles are recontaminated there, this nullifies all the success achieved in the pre-cleaning and main cleaning areas.”



No sizeparts: Niko air cleaner has adjustable rubber belts to carry containers

According to Krones, the ‘clean design’ features at the discharge stage include microbiological safeguards such as a dirt lock in the post-caustic bath. This is a first for Krones, and means that any particles are filtered out, minimising the risk of germ growth and recontamination. Dead corners are eliminated, and anti-microbial plastic is used for the bottle slide.

In another design first, Krones says it incorporated HEPA/ULPA filters in a bypass outside the discharge section. This uses rotary discs to remove fine dirt and paper fibres from



Reduced costs: Dutch brewer Bavaria has installed the first Krones Lavatec KD 2005 double ended washer

the post-caustic stage, again helping to maximise microbiological safety.

The self-cleaning features also dramatically cut operator intervention and increase machine availability, Krones explains. The fine filters in the bypass use automatic back-washing, and the main discharge section features an automatic interior cleaning system.

Bavaria's head of quality assurance Jan Donkers says: "Automatic interior cleaning works just fine. The bottles' microbiological quality has been significantly improved. We've thus taken one step towards our medium-term goal of eliminating tunnel pasteurisation for our beers."

The effectiveness of the pre-soaking stage means that caustic baths can be replaced every four months rather than the previous three weeks. This again has an effect on machine availability, but also means that 50 per cent less water, caustic and additives are used, according to Mr Donkers.

Hygiene requirements for primary packs can vary enormously, even in the food industry.

While some food and drink products will require ultraclean or sterile filling, some pickles and sauces need nothing like this level of care. And as Ave points out, for some oil-based products, water in the pre-fill rinsing process can actually be a problem.

Planet Flowline says it sells an average of at least two Niko combined air blast cleaners a year in the UK and Ireland. Using a combination of air blast and vacuum, they are said to be well-suited to wide-mouth jars. Machines have recently been purchased by Baxters of Colchester and Boyne Valley Foods in Ireland.

Rubber side belts

The gripping system, using rubber side belts, makes the system suitable for a wide range of different size jars, which are inverted before passing over the blowing nozzles at speeds up to 300 a minute. Plastics as well as glass could run on the machine, says sales manager Ian Carter, although currently he is not aware of any users using the machine this way.

Changeover need take no longer than five

minutes, says Planet Flowline, without the use of changeparts or special tools.

As Ian Carter explains, for products such as pickles and some sauces, air cleaning is a perfectly adequate way of checking for container cleanliness between depalletising and the filling stages. On the other hand, air cleaning is not suitable for narrow-neck containers and bottles, he points out, where air cannot circulate effectively.

In a very different kind of cleaning process, Industrial Washing Machines (IWM) has made a shift from tailored to standard systems with its sealed pit rack washer.

Large racks or trolleys, used in processes such as baking and smoking, pose certain challenges at the washing stage. The standard rack washer design, developed over many years, places a large cabinet over a water tank sunk below floor level, so allowing recirculated wash and rinsing water to return via gravity, as well as safe and convenient floor-level loading.

Contaminated with food debris

But IWM noted a tendency for the sunken pits to become contaminated with food debris, often in warm, moist conditions with poor access for cleaning. The company's answer was its sealed pit system, which eliminates the usual gap between the base of the machine and the edge of the pit. The latest version also uses a travelling jet system which, says IWM, ensures good internal washing performance as well as external hygiene.

IWM has a range of washing systems for trays, crates, Eurobins, pallet-bins, pallets and racks. This includes its Crusader T800 High Care traywasher, which can handle up to 800 containers an hour. Treatments can include sustained jetting with hot and ambient re-circulated water and detergent and, from a separate tank, jetting with rinsing water heated to 85deg C for sanitisation. A blow-off and drying section is also available.

Newsmith Stainless designs and builds basket washing, handling and product loading system for bakeries, consisting of an automatic destacking system, trash dump and high speed soaking wash systems designed to deliver clean, dry baskets.

On completion of the drying process the baskets are automatically conveyed to the Newsmith product loaders which automatically load bread and rolls, in multiple pattern formations and at a speed up to 90 pieces a minute.



Improving rack washer cleanliness: Left: Sinking a rackwasher in an open pit can lead to contamination from the gap between machine and pit. Right: Sealed system from Industrial Washing Machines maintains hygiene

The Food Machinery Company supplies cabinet washers from Dutch company Unikon – which also manufactures continuous systems for trays and other containers – and Danish manufacturer Jeros. Managing director Mike Wilkinson says he has seen particular growth in demand for cabinet washers among customers such as Tate & Lyle, McDonalds Restaurants and food industry supplier Hilt-fields, bringing the total number of Jeros and Unikon washers in the UK to around 700.

In many cases, the use of a cabinet washer has replaced hand washing of utensils or machine parts, using the manual three-sink wash system, with pre-wash, wash and rinse stages, plus air or hand drying.

“Not only are such systems very energy-inefficient, with large amounts of water and chemicals being used, but it is almost impossible to ensure that hygiene is maintained,” says Mr Wilkinson. The fact that issues such as water change are also subjective means that either hygiene may be compromised or else water wasted.

Other installations show the effect of self-contained washers on key packaging machinery parts where CIP is not available.

“Tate & Lyle used to have many problems with damage occurring to the feed tubes to its form-fill-seal machines,” says Mr Wilkinson. This happened en route to and from the wash areas, but also during the washing process itself. “In addition, it was not possible to ensure that they were thoroughly dry – a major issue when working with sugar.”

Installing a washer adjacent to the form-

fill-seal machine resolved the transportation issues. But a washing cycle of just three minutes, with rinsing temperatures up to 82deg C, also provides specific benefits.

“Each set of feed tubes could be washed individually, thus preventing further wash damage, and also would dry rapidly due to the temperature of the final rinse,” Mike Wilkinson explains.

A similar solution was chosen by a “major sandwich manufacturer”, says the Food Machinery Co. Here, there was a problem with key parts of multihead weighers and volumetric depositors being lost or transposed during the hand-washing process. Since then, washers have been positioned next to the various machines used in the factory. A system of lockable baskets is used to ensure the same parts return to each machine.

Food hygiene

Of course, no level of cleanliness in packs and packaging equipment is effective if the safety of the food or drink product itself is not properly managed. In recent years, changes in the types of product demanded by consumers have had an effect on hygiene requirements in areas such as fresh produce.

Saturn Spraying has applied its ‘spinning disc’ system of fine, directed spraying to a number of different processing and auxiliary operations.

According to sales manager Jeff Fletcher, these have included an increasing number of systems for applying sterilant to cut, fresh fruit and other produce. This has largely been

driven by consumer expectations, and the convenience of peeled and prepared product.

“Once strawberries have been dehulled, for instance, they start to degrade. Passing them through a spray machine with a sterilant such as Citrox retards mould growth, and can add an extra two to three days shelf life,” he explains. Open-cup mushrooms, peeled carrots and prepared salads are among other items which can benefit.

Saturn’s Discmaster system has traditionally been used for the application of ingredients such as flavourings to the outside of snack biscuits and other products. Other growth areas in processing have included fat spraying, where fat content can be substantially reduced compared with deep-frying.

But the effectiveness of the ‘spray curtain’ has also been felt especially at the crossover point between ‘low risk’ and ‘high risk’ processing areas, says Mr Fletcher. This distinction is nothing new, he adds: “But more and more, the requirement is for absolute sterility.”

As a result, the application of sterilant in the Saturn Sanitising Tunnel has become a popular process. Everything from utensils to full ingredient pouches and other containers can be fed into the preparation area this way, he says. ■

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On top form

INCREASING FORMAT FLEXIBILITY AND IMPROVED ECONOMICS ARE CONVINCING MANUFACTURERS IN CERTAIN FOOD CATEGORIES THAT IF THEY ARE TO SURVIVE THE SQUEEZE OF THE MULTIPLES, THEY MAY BE BETTER OFF SWITCHING FROM PRE-FORMED CONTAINERS TO THERMOFORM-FILL-SEAL.

As a technology, thermoform-fill-seal might be well over 30 years old, but there are still areas within the food industry that are only just realising the potential cost savings that it can bring.

According to Jim Campbell, general sales manager, thermoforming and tray sealing, at Multivac UK, one such market sector is fresh convenience produce such as stir fry vegetables and fresh fruit salads in trays.

"If you talked to that market five years ago people wouldn't have known what thermoforming was. Now it's one of our biggest business areas," he says.

The overriding reason for this shift is cost pressure from retail customers. "There's a massive drive from retailers to cut costs," says Mr Campbell. "A lot of our customers are getting the same price for their packs as they were four or five years ago."

The cost savings that can be made by switching from pre-form to thermoform are certainly not to be sniffed at. Jim Campbell estimates that, as a rule, producers are looking at a 25-40 per cent lower pack cost when using a thermoformer rather than pre-made trays.

"The logic behind that saving is that you're not paying the manufacturer to make the tray, an operator to stand at the end of the line and pack the trays into boxes, the lorry driver to take them up and down the country and for you to store them."

If the advantages were so cut and dry, though, there would no longer be a market for pre-formed trays. Thermoforming does still have its downsides, which Multivac is working hard to overcome.

Firstly, there is a widely held belief that pre-formed trays are more rigid than thermoformed trays, so providing greater stability. Indeed, Jim Campbell explains that one of the reasons is that pre-formed trays tend usually to have a rolled edge on the outer circumference of the pack, which is difficult to replicate with



Rolled edge: Multivac's new R550 LipForm machine creates a raised flange for food trays

the traditional thermoform-fill-seal process.

While on the face of it, this might not seem significant, the problem is that retailers operate dual supply agreements on most lines, so unless both packers supplying a supermarket go down the thermoform-fill-seal route, it won't happen, because retailers want consistent packaging design.

Producing the rolled edge

To address this issue, at this year's Foodex Meatex, Multivac launched a new thermoformer which is capable of producing the rolled edge traditionally associated with pre-made trays, allowing existing shapes and sizes of pre-made tray to be copied and transferred to in-line production with all the potential savings in storage, handling and materials.

The new R550 LipForm machine employs Multivac's top-forming technology to create a raised flange above the bed of the machine. Width, depth and incline can all be varied.

Also, since inclined tray side-walls are no longer required for denesting, the machine can produce a pack with virtually vertical sides,

potentially reducing pack size relative to volume for increased shelf utilisation and lower material costs.

Depending on the shape and size of the pack, the dies of the R550 LipForm machine can be configured to have multiple lanes and multiple rows so that, for example, four lanes of three rows could be employed to give 120 packs a minute from the machine's cycle speed of 10 a minute.

Infra-red heat helps

Ulma Packaging has launched the TF Supra Skin thermoformer for producing display packs of cooked and uncooked meats, fish and cheese. The machine's infra-red top web heating system is said to make it quicker to start from cold, resulting in energy efficiency and reduced costs.

Ulma's UK director, Derek Paterson, says: "There has been incredible interest in the TF Supra Skin because people can see, for the first time, a real alternative for this type of packaging machine – a sensibly-priced option



Tight wrap: Fresh meat is one application for the Multivac Form Shrink process

The R550 LipForm can run all standard materials such as apet/pe, eps, mono or multi-layer polypropylene and pvc.

Historically, the perception that it is necessary to be producing thousands of packs a day to make the investment worthwhile has been another barrier to the uptake of thermoform-fill-seal equipment. Multivac for one admits that it has always concentrated on the higher volume end of the market.

However, the company has recently extended its reach to cover the lower volume end of the market, with the introduction of an entry-level thermoformer called the R140 which, according to Jim Campbell, is finding favour with small sandwich producers. "Previously they wouldn't have been able to justify the capital cost of a thermoformer," he says.

The R140 is a fully automatic, stainless steel machine that occupies just three square metres of floor space. It can produce the three pack

types – vacuum, modified atmosphere and protective packs – for applications ranging from sterile packs for disposable syringes to retail packs for fresh meat or maturing cheese blocks. A maximum film width of 420mm, an advance of 300mm (150mm with preheat) and a depth of draw of 130mm make it possible to produce a variety of pack sizes.

Dies closed for cleaning

An optional cleaning programme can be incorporated into the system, whereby the dies are closed to protect them from potential bacterial contamination.

The R140 features the Microprocessor Control System (MC-96) which is now standard on all Multivac thermoforming machines. Programme parameters are entered via a simple, easy to use display terminal and up to 50 individual product programme settings can be stored in the memory.



Pedestal pots: Made on the Erca-Formseal system

Another factor that has deterred manufacturers from investing in thermoform-fill-seal is the perception that once you buy a piece of equipment, you're stuck with one pack size and design.

To a point this is true. Chris Robinson at XJL, the UK distributor for French thermoforming equipment manufacturer Erca-Formseal, concedes that it is not possible to combine thermoform-fill-seal with real format flexibility. "It's possible to achieve rapid changeovers on the shape or format of the body of the container, but on a single machine, the top profile cannot be changed. Forming mould changes allow for limited variations in height and width."

Erca-Formseal, whose area of specialism is containers for dairy desserts and drinks, has nevertheless made considerable progress in increasing format flexibility, with its reel-fed EF-Open series of machines for shaped thermoform pots.

According to Chris Robinson, manufacturers of dairy desserts have traditionally steered away from thermoform-fill-seal for single pots, judging the appearance of individual thermoformed containers to be less sophisticated than their pre-formed counterparts.

However, split mould technology developed by Erca-Formseal enables manufacturers to produce more unusually shaped containers such as pedestal pots, goblet pots, bottles and jars, without suffering the expense of high scrap levels.

While split moulds allow thermoformed containers to be produced with a negative taper,

to accelerate machine start-up



Cheese skinpacks: One of the current applications for Ulma's TF Supra Skin thermoformer

that performs well and which can run equally well with a number of varied film types."

He adds that the TF Supra Skin produces attractive packaging with the product held firmly on a rigid base, with the tight seal avoiding risk of product slippage.

Also, because the top web of film is moulded to the product like a second skin, retailers can display packs upright, giving improved product visibility.

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such as the pedestal of a pot, the yield from a given length of film is reduced by the distance the moulds must open apart for the containers to clear. Erca-Formseal's solution has been to design a split tooling system in which the cavities are arranged in two rows, offset and interspaced to provide minimum clearance and therefore minimum waste.

The form of any of these containers can also be adapted to take advantage of Erca-Formseal's in-mould labelling system. The machine can be supplied either as a complete FFS unit or as a thermoformer only where manufacturers have existing filling equipment.

Even with the increased flexibility provided by split mould technology, Chris Robinson emphasises that thermoforming does still have its limitations.

"We have seen new shapes like jars and pedestal pots, but it is important to recognise that the form-fill-seal machine is a combination of a number of packaging operations and its capabilities in producing containers may be more limited than a single purpose thermoformer or injection moulder."

Improved flexibility

Multivac too has made headway in improving the flexibility of its equipment. The company recently built equipment to produce a 200mm square pack, with a forming plate that drops into the die, enabling the customer to produce a corner pack on the same machine.

"The changeover time is less than 10 minutes for a completely different looking pack," explains Jim Campbell.

Multivac can also produce equipment which will automatically switch between pack sizes. "With the thermoformers we're producing now we can alter the depth automatically in the die, so a salad producer could, for example, produce a 100g grab-and-go pack, a 250g twin pack and a 350g family pack on the same machine, simply by selecting a different programme."

Multivac has also taken thermoforming into new territory with the Form Shrink process – using shrinkable film for top and bottom webs – which is put forward as a more economic alternative to using shrink bags for wrapping meat, sausage, poultry, cheese and convenience products.

Cavities are formed in the base web in the usual way and the product is loaded from the top using loading grids that considerably reduce contamination of the flange. After the

Form-fill-seal polypropylene pots are shrink sleeved on machine

The first form-fill-seal machine to produce microwave and freezer compatible pots and trays from polypropylene – complete with shrink-on decorative sleeves – was demonstrated by German manufacturer Hassia at Interpack last year. Ultra-clean or aseptic versions are available.

Aimed at products such as desserts, jam, baby food, pet food, soups and ready meals, the Polyflex 8/48 is said to provide all the conventional materials and logistics cost savings of the form-fill-seal approach but also the operational advantages of in-line decoration, via a totally integrated single machine that uses only reels of packaging materials.

At Interpack the machine was running a 250ml bowl, which is typical of desserts and baby food, as UK representative Engelmann & Buckham points out.

The machine is capable of speeds up to 25 cycles a minute, and can run a 480mm wide base web of either mono polypropylene or a high barrier co-extrusion such as pp/evoh/pp, creating a single row of pots up to 80mm diameter on each cycle. Maximum forming depth is 90mm.

To cope with the thermal instability of polypropylene – particularly its susceptibility

top web is sealed in place, the overlapping film is removed by product shaped cutters and a peel tag can be provided if required. The film is then shrunk. Pack strength apart, Multivac points out that a principal advantage of the system is the opportunity to create an individual pack design using clear or printed top and bottom webs.

Ultimately though, Multivac recognises that there are applications in which the use of pre-forms is always going to be preferable. The packing of chicken breast multipacks is one such example.

"The way those lines operate is that there is a grading line further downstream in the production hall, so chicken breasts come through in varying weights. Thermoforming wouldn't work particularly well because you'd have to

post-processing shrinkage compared with other thermoforming materials – the Polyflex employs a series of photo-electric sensors to monitor the position of the cavities at every station after forming and then, via the independent servo drives, keep them in register to the next station.

This means that the formed cavities are precisely located for the lidding, sleeving and cutting stages, independent of any web elongation or contraction as a result of machine stoppage, change of speed or ambient temperature.

Lidding material is typically peelable petp/pp while the printed sleeves are made from orientated polystyrene and applied to the



Sleeved thermoform-fill-seal pots: Produced on the Hassia Polyflex

underside of the containers by a reciprocating carriage that handles a whole row within the cycle. The sleeves are then shrunk on in an enclosed steam chamber and the containers move to the cutting station for separation.

T: 01420 82421

E: sales@buckham.co.uk

position the thermoformer above the grader, which wouldn't allow time for the packers to orientate and present the chicken. Ultimately, it's got to be the right packing system for the customer," says Jim Campbell. ■

For further information:

Multivac UK

T: 01793 425880

E: sales@multivac.co.uk

XJL

T: 020 8763 3737

E: info@xjl.uk.com

For full details of all PPMA members able to supply thermoform-fill-seal machinery, consult the PPMA machinery finder service, tel: 020 8773 8111, or visit www.ppma.co.uk

NEWMAN LABELLING SYSTEMS

Labeller handles variety of pharma bottles in short runs

Pharmaceutical manufacturer HAL Allergy has automated bottle labelling at its headquarters in Holland, replacing a manual operation with an NV2 automatic applicator from Newman Labelling, allowing production levels to be stepped up.

"We are making more and more products, but the labelling process was slowing us down," says HAL process engineer Helen Stuart. "Now we are labelling 4000 bottles in half a day when it was taking us a week in the past."

The NV2 machine is being used to label a variety of glass dropper bottles – from 2 to 50ml with and without overhanging caps – in small batches at speeds up to 50 containers a minute.

According to Newman sales director Ian Hillaby the machine was chosen for its simplicity and flexibility and to meet customer demand for a labelling system that



Variety of containers: Newman NV2 labeller uses a rotating drum applicator

could be run by a single person, and changed over by line operators.

"Technically, the biggest challenge involved the variety of bottles – vials, very small dropper bottles with pipette screw-caps, and a dropper bottle with an overhanging cap – but we were able to find solutions," he says.

The Newman NV2 uses a variable speed roller to pitch containers at the infeed and has a rotating applicator drum system. This is said to improve product control and labelling accuracy while requiring only one change part, a simple presser pad. T: 0208 440 0044 E: sales@newman.co.uk

SESSIONS OF YORK

Applicator attaches wide labels with no loss of speed

The Jumbo extra wide pressure-sensitive labelling machine has been developed by Sessions to cater for applications such as attaching large hazard labels to drums.

Said to be the first labeller to offer label application up to a maximum width of 305mm with no compromise on operating



Handling wide labels: Jumbo applicator from Sessions

speed, the Jumbo is also available with 205mm and 125mm widths and runs at speeds up to 30 metres a minute.

Controls are on a touch screen with LED digital display and memory for different product settings. The machine also comes with Sessions' Catprint hot foil printer controls already built in to the circuitry.

T: 01904 659224
E: machine.info@sessionsofyork.co.uk

PREMIER LABELLERS

Jars labelled at 350/min

Wilkins Jam is meeting increased demand for its range of Tiptree Jam mini-jars with a new Premier 200 front and back pressure-sensitive labeller capable of handling 350 jars a minute. A further machine has now been ordered by Wilkins for its main production line.

T: 01255 553822
E: labellers.plfuk@btinternet.com



LOGOPAK INTERNATIONAL

Coors installs two new generation compact keg labelling machines

Coors has installed two new generation Logopak 515 TK keg labelling systems at its Burton-on-Trent Brewery.

Fitted within stainless steel enclosures, the units were installed on existing support structures and over keg arrestor devices, to apply

a 70 x 40mm label to the top surface of a range of four keg sizes from 30 litre to 36 gallon at speeds up to 600 kegs an hour.

Smaller in size than previous Logopak keg labelling systems, the new 515 TK systems are said to be faster and easier to service. They

incorporate industrial bar code scanners to read a two digit bar code on the label, a good read indicating a labelled keg, a no read sending the keg down a reject leg.

A pneumatically operated trap-door under the applicator opens and closes in order to prevent the

ingress of water or leaking keg spray while illumination and internal heating are provided inside the enclosure to ensure that labels are kept in optimum condition.

T: 01904 692333
E: salesonweb@logopak.net

D2 FOOD SYSTEMS

Cook, quench, chill for pasta delivers 2 tonnes an hour

The Vortex S cook, quench and chill system for continuous cooking of pasta and rice is a simplified version of the Vortex 2 machine that can be tailored to individual user requirements.

It delivers 100kg to 2 tonnes of cooked rice or pasta an hour at temperatures under 5deg C, allowing the product to be moved straight to ready meal processing and packaging lines. The system can also be adapted for potatoes, vegetables and seafood.

The new S version differs from the Vortex 2 in that the lifting and tilting baskets are mounted on a common frame; there is an integrated control panel; it can be semi or fully automatic; there is no cooker lid; and product loading is by the integrated Vortex basket feed system with optional weight control instead of a conveyor.

Processing is carried out in three stages. The cooking area is



Continuous cooking: Vortex S cook, quench and chill system

fed with dry or fresh product where it is subjected to controlled water agitation designed to prevent rice or pasta clumping together.

After draining, product is transferred by a lifting and tilting basket into the quench section where product temperature is reduced from 95deg C to less than

30deg C. Quench water is emptied every two to three cycles.

The quench basket is then discharged into the chill section where integrated water re-chill reduces temperature further, to less than 5deg C.

T: 01582 622111
E: sales@d2foodsystems.com

BRADMAN LAKE

End-load food cartoner sells for 'attractive price'

An automatic end-load cartoner aimed at food packers who "want the labour-saving advantages of a fast, fully automatic end-load machine at an attractive price," has been announced by Bradman Lake.

The new SL903 offers speed up to 130 cartons a minute – almost 50 per cent higher than the Bradman Lake SL902 machine with which, to reduce cost, it shares some common parts.

To cope with higher speeds, there is a three head vacuum carton feeder and longer carton



Lower cost: Bradman Lake SL903 automatic end-load cartoner

magazine with motorised hopper, while size changing has been simplified, with handwheels to adjust carton flight chains and the pockets of the infeed conveyor. The product inserter is also fitted with quick release pushers.

Built in stainless steel, the

SL903 is said to offer easy access and maximum visibility. Lifting the guard over the product inserter frees the pusher arms which can then be lifted and slid back to allow any jams to be cleared easily.

T: 0117 971 5228
E: enquiries@bradmanlake.com

IBIS PACKAGING SOLUTIONS

Remote control pallet wrapper attaches, cuts and ties film tail

A turntable pallet wrapping machine that can be controlled by a fork lift driver from his vehicle, yet is said to cost very little more than a standard machine, is now available from Ibis Packaging.

The Ibis C-one Super Plus incorporates a remote control and has an automatic system that attaches the film to the pallet and then ties and cuts the film once wrapping has been completed.

This, points out Ibis improves productivity substantially, since new pallets to be wrapped can be collected while the wrapping cycle is taking place.

T: 01635 278797
E: laura.jenkins@ibispackaging.co.uk

BOSCH PACKAGING SERVICES

Entry-level flow-wrapper offers speeds up to 250/min

Bosch has announced a multi-purpose entry-level flow-wrapper for medium speed duties up to 250 packs a minute.

Servo driven and available in stainless steel if required, the machine uses a low number of parts and is built on a balcony basis to give easy access for cleaning. Changeover time is said to be typically less than 5 minutes, with easily repeatable mechanical adjustments.

Accessories include automatic infeeds and robotic feeders.

T: 01332 626262
E: uenquiries@boschpackaging.com

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THERMO ELECTRON CORP

'Multi-coil' system raises metal detector sensitivity

The Apex metal detector launched by Thermo Electron is said to offer a 20 per cent increase in sensitivity compared with its predecessors and to set a new standard in metal detector performance.

It uses new "multi-coil" technology to increase the effect of the magnetic field in the aperture by more than 1.5 times so, says Thermo Electron, enabling the detector to target and amplify signals from much smaller pieces of metal contaminant.

The Apex also incorporates a new shielding technique that reduces substantially the unwanted effects from hard to handle, wet or conductive products. There is also new digital signal processing software to improve sensitivity further.

Key features of the Apex metal



Higher sensitivity: Apex metal detector offers an increase of 20 per cent

detector include an icon-driven interface which minimises training time and user interface language barriers as well as quality assurance tests and the Audit-

Check system said to go beyond simple go/no-go tests and verify detector performance on-line.
T: 01788 820300
E: sales.wi.uk@thermo.com

NIRO PHARMA SYSTEMS

Tablet coater gives even application on small batches

Niro Pharma Systems (NPS) has launched a laboratory scale tablet coating system which is said to provide greater evenness in the coating and make production of small batches for R&D more cost effective.

The SuperCell Coating Technology (SCT) system can produce batch sizes from 30 to 120g and also handle friable or hygroscopic tablets, achieving an

even coating weight through a technique in which the tablets are coated with the coating spray in the same direction as the drying gas.

Meanwhile, the SCT has an air distribution plate design said to help the tablets move quickly and predictably through the spray zone, adding a small amount of coating on each pass, which also helps boost the evenness of the result.

"In conventional coaters, tablets

are loaded in large rotating pans and vented for hot air drying, but this means tablet edges can get ground off, indentations can get filled in by coating material and edges and corners may not be coated with the same thickness as the tablet faces," notes NPS.

"These inaccuracies limit the use of modified release coatings."

T: 023 8026 7131
E: info@niropharma.com

ISOPAK

Checkweigher monitors tablets and capsules

Italian manufacturer Dott Bonapace, represented by Isopak, has announced a small scale production and lab scale check-

weigher for tablets and capsules.

Capable of speeds up to 3000 items an hour, the CW-30 can handle product weights from 10mg to 120g and is PLC controlled.

Tablets and capsules are fed into the machine through a stainless steel hopper and pass out to either

the accept or reject chute.

Alternatively the machine can be linked with other Dott Bonapace equipment, such as the In-Cap capsule filling machine or CPR-6 tablet press.

T: 01780 410093
E: mail@isopak.co.uk

ILLIG UK

Optimisation process lifts thermoformer output

The third generation Illig RDK/RDKP range of thermoforming machines includes a newly developed optimisation sequence that, at the press of a button, automatically fine tunes process parameters to reduce cycle time while maintaining product quality.

To provide an example, Illig compared output for a typical appet meat tray of 138x 228 x 25mm made on an eight impression tool.

Automatic parameter setting on the previous generation of RDKP machines gave 37.2 containers a minute while manual setting – to achieve the quality level required – on the new third generation machine gave 40.5 containers a minute. This was raised 32 per cent to 53.5 containers a minute when the optimisation sequence was initiated while further manual fine tuning gave 56 containers a minute.

In a further test using an unmodified eight year old UK made sandwich pack tool, the optimisation process gave a 89 per cent increase in production, from 24 containers a minute to 45.4.

Illig explains that the increases in performance are achieved without reducing forming or cooling time, but by overlapping process sequences and eliminating dead time.

However, to cope with the increase in performance the new machines are fitted with an improved transport drive, new forming air valves, a servo driven stacker clamp mask and an improved stacker cage. In addition there is a larger CPU and modified software.

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