

dairy, yoghurts & desserts




Healthy outlook for dairy products?

The annual UK milk market is today worth about £3.2 billion, up by more than 20 per cent on 2003, according to figures released recently by Mintel. And the dairy sector as a whole is worth about £6bn. But this growth is driven by value rather than volume; and this is set to continue with deliveries of milk to processors down by more than 13 million litres already this year.

While the prices of milk and dairy products has risen, so too have the costs of production, particularly feed and energy, squeezing the dairy farmers hard. But most forecasters are optimistic about the longer term prospects for the dairy sector and see one reason for this being value added products, such as probiotic and yoghurt drinks, which are gaining in popularity and diversity all the time.

So what are the implications of these changes in the product make-up for packers and machinery suppliers?



Forecasting investment trends for the conservative dairy industry has never been easy. But there are clear signs of a new generation of drinks and desserts requiring innovative processing and packaging solutions. And in terms of the staple products like milk, butter and cream, these are seen as essential commodities in 98 per cent of households. So even if demand only remains stable volumes are huge (more than 5 billion litres for liquid milk in the UK, annually) there is plenty of room for developments.

Current issues around processing and packaging are ones of energy and sustainability as much as efficiency.

A senior packaging manager at one of the UK's major dairy companies told MU that they must always look for 'quick wins' on production efficiencies because of the retail environment, but are always keeping their eyes open for more strategic 'wins' for the future.

"Currently we want new equipment to be more energy efficient and this goes for the conveyors and motors and just about every other component," he said. "Also filling line designers

need to eliminate 'dead time' during production, for example where conveying stops if there is a halt in production."

Encouragingly he said that co-operation with machine suppliers about weight reduction and recyclable material usage had improved considerably. "We do not have to wait for the technology to catch up now as we work together to trial alternative materials or lighter containers."

He added: "The challenge is not always to do things in a new way but to do the things we are doing better and that means using the expertise of our suppliers.

"Sometimes the major 'systems' companies try to be all things to all men and do not meet required specifications. We buy the best machines for the job and these can come from smaller machinery companies with specific expertise. Total solutions companies can be useful, but they are not a panacea."

Price rises are a major challenge for dairy product producers. "Our challenge is to ensure we produce as efficiently as possible in order to minimise the price. How much would a litre of milk be if a 'do nothing' scenario existed?" he asked.

"Dairies deliver direct to major stores in a 'closed loop' system for most of the standard product ranges, only a few cheeses and butters might go to regional distribution centres. This means we have very tight control of the whole production and distribution process.

"The degree of line control is greater than ever before with advanced software and SAP. This is driven by the retailer and automated management systems are more reliable.

"But RFID and other Track and Trace technology does not work well in a dairy. So there is a challenge for someone."

Finally on production technologies across process as well as packaging he feels the same rules apply. "We want it faster, more automated, shorter times for things like CIP and more energy efficient systems for pasteurisation, et al. But we are not expecting revolution. Evolution will do - we can work together on that."

DAIRY DIGEST

■ **China's per capita consumption of milk** is 21.7Kg per annum, according to a recent report in the *People's Daily*, only one fifth of the world average. However the China Dairy Association expects consumption to reach 40Kg per head by 2020. There is a wide discrepancy between consumption of fresh milk in urban and rural areas. The current average in cities is 24.8Kg while country dwellers consume only 2Kg each year. Beijing's residents drink a massive 46.2Kg annually, says the Association.

■ **The average price for 100kg of milk** in the EU has risen by 22.7 per cent in the past year to Euro 32.90, equivalent to 25.28 pence per litre (ppl).

In April 2008 the UK had the lowest price average at 23.55 ppl while Greece was highest at an equivalent of 33.82 ppl.

Generally in France, Germany, the Netherlands, Poland and the UK prices are now static or falling.

But between May 2007 and May 2008 fresh milk prices increased by 14.2 per cent, butter 31.9 per cent (now falling) and cheese 16.3 per cent compared with an overall rise in UK RPI of 4.4 per cent.

Source: DEFRA/EU Statistics

■ **Long life dairy:** A recent report in *The Times* says that cheese and fruit yoghurts may have been made 8500 years ago. Researchers have found traces of fat on shards of pottery which indicate dairy processing was being practiced by Turkish farmers from the Dardanelles in 6500BC.

**DAIRY
DIGEST**

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Portion packs get

Machinery Update looks at machine systems developments that are helping customers build success in value added markets

■ **Danisco** AS of Denmark has developed a protective culture under the **HOLDBAC™** YM brand.

It contains bacteria which has a specific inhibiting effect on yeasts and moulds found in fresh fermented dairy products such as yoghurts, sour cream, and cottage cheese.

HOLBAC™ YM can make fresh fermented dairy products less susceptible to spoilage during their shelf life - reducing potential consumer returns and facilitating distribution over longer distances, enabling the production of larger batches, said Danisco.

www.danisco.com

■ **Sainsbury's** has announced a trial, at 35 of its stores, to sell milk in recyclable bags.

The milk is decanted into a re-usable jug which can be bought from the retailer. The bag has been designed in conjunction with Dairy Crest and is aimed at cutting milk packaging by up to 75 per cent. If the trials are successful the bags could be available in up to 500 of Sainsbury's stores by the end of the year.

www.sainsburys.co.uk

■ **C-Series** conveyors, manufactured by **PIAB**, have enabled Danone Poland to improve production at its automatic powdering station for transporting moisture absorbing whey and non-free-flowing starch. The conveyors, which are powered by pneumatically driven vacuum pumps can move up to 15 tonnes/hr of product.

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The birth of a new generation of 'healthy' dairy products is being ably assisted by many machinery companies. For example equipment suppliers can now offer unit dose equipment whether that is in a bottle, sachet, pot, pouch or stickpack form. And several companies have developed Ultra-Clean or Aseptic filling lines, some with thermoforming capabilities.

Certainly the vogue for all things in a pouch is now finding success for products such as fromage frais and other spoonable dairy products. For example, the SMA-260 from Volpak (UK agent Integrapak) first launched at interpack 2005, is now available in a fully aseptic version that can also be fitted with a screw top for resealing. Volpak is also producing a stand up pouch for grated cheese products incorporating a slide zipper device.

Michael Lindsay, sales manager, Integrapak, says the benefit of fully aseptic machines compared with Ultra-Clean is the greatly extended shelf life for cold chain products, although it also improves ambient product shelf life. A better clean down regime is also an advantage, he said.

Stickpack style products for yoghurt drinks, or squeezable products such as soft cheeses, have

been launched in the UK with varying amounts of success. Mueller, always one of the most innovative dairy companies, were the first to try it. And Integrapak has supplied Yeo Valley Organics with a Schwarze machine to produce a fromage frais snack.

Pundits believe snack, convenience and health products are where growth will come for the dairy sector and this is backed up by a Mintel forecast that flavoured milks will show 35 per cent growth at today's prices between now and 2013.

Skimmed milk is now claiming re-hydration properties for use after sports. New products such as Mars Starburst fruit flavoured shakes and Cravendale's Half Pint, marketed as an energy supplement will, states the study, find their way into lunch boxes and vending machines with increasing regularity.

Stylish formats

Currently children get more than 40 per cent of their milk consumption via the milk poured on cereals each morning. This will change as new products with stylish, convenience formats increase in popularity.

Hassia, part of the Oystar Group, and represented in the UK by Engelmann & Buckham, has several machines catering for the new pack styles required. The company's SVL and SAS Aseptic StickPack systems have established markets in margarine, portable puddings, cheeses and fruit mixtures.

The machines also produce a dual stick pack with a yoghurt bar and fruit mixtures bar in a single stick pack.

Its range of TAS Aseptic thermoforming machines offers many styles of pots, including dual cavity for products such as cereals with milk and yoghurt and fruit. Hassia claims its Steam Aseptic system is a breakthrough in both customer satisfaction and production safety. No chemicals are used in the foil sterilisation process, so there is no flavour taint due to residue and as steam is already present in the plant there are energy saving implications, plus greater safety for operators who are not exposed to volatile substances.

Another Oystar company, Erca-Formseal, which claims to have pioneered the cup FFS



Customers are demanding a longer shelf life - not just for branded white milk, but also for value added milk and flavoured milks that kids will enjoy. Elopak believes Extended Shelf Life (ESL) technology will play an important role in the further development of these dairy segments (Picture courtesy of Elopak) www.elopak.com

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green light

process in 1958, recently introduced its next generation EF400 for 4 x 6 125g cups which applies labels in two steps per run at a capacity of up to 40,000 cups/hour. The company produced the first thermally formed 100ml bottle in 2007, says Oystar.

'The real thing'

Consumption of UHT products remains constant at about 8.5 per cent of the UK market. But innovations in the process are leading to improved taste with several dairy producers claiming that long shelf-life products can taste just as fresh. One of the UK's leading Organic suppliers of dairy products is about to launch a 42-day shelf life milk which, it says, is just as good as the real thing.

Demand for powdered milk products continues to grow strongly, particularly in the BRIC economies. This, according to forecasters, will continue to suck in investment in processing and packaging capacity, although local machine suppliers will probably meet most of this demand, as consumption of the products is largely domestic.

Overall the dairy sector and its suppliers have grounds for cautious optimism, particularly when compared with the recent past. But UK milk production is still in decline and, despite prices to consumers increasing the production margins are still very tight.

However demand for milk products is stable and the potential for better margin, added value products seems bright. The diversification of packaging and packing styles is to be welcomed after years of bricks and bottles. Those with the equipment to meet the demand for sticks, pouches, sachets, monodoses and pots could be the ones to prosper.

FURTHER INFORMATION

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3-D effect for singles

Individual 3-D packs of cheese, fromage frais and yoghurt drinks can be produced on the new Unifill® TF-02.

Producing up to 24,000 '3D' style mono doses/hour, the thermoform fill seal machine uses a single web of plastics material, which can be laminated and/or co-extruded as PET/PE or PVC/PE, using thicknesses between 90 and 500 microns. Ultra clean versions include sterile air thermoforming, inert gas flushing and laminar flow with HEPA filter.

The material is folded into a V-shape prior to entering the thermoforming area which enables stand up containers to be produced. The use of a continuous strip eliminates the need for side trimming, so reducing material waste. Print registration for both front and back is available.

The film enters the thermoform area which comprises a double pre-heated station, one set of heated moulds and one set of water cooled moulds. The moulds are located on an accessible hinged balcony for ease of service and changeover. Mould length is 210mm while height can be varied between 50 - 120mm.

Following the filling process, which can be adapted depending on the product characteristics, the strip is conveyed through the progressive sealing system. Once the container neck is sealed the final cutting station separates the doses to the required shape via a dedicated die-cutting unit.

Multipack formats are also available. A variety of closures can be attached which include, sticks as well as screw, flip-top and break-off styles. Unifill is represented in the UK by Springvale Equipment.

The company has also introduced a soft, flexible bottle pack, the QwikPak™ produced on its TF-400 machine. It can be used for drinks, sauces, edible oils or toiletries such as shampoos. Again the bottle shape can be cut to customer requirements.

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Cell provides pots of stability

RTS Flexible Systems has developed a high speed robotic cell ideal, it says, for picking and packing yoghurt and dessert pots even when shapes are inherently unstable.

The cell can be adapted to cope with any shape of pot and can easily be integrated into most pot filling operations. The system, which allows one picking cell to deal reliably with different products with almost continuous operation, has taken 18 months to develop, says RTS.

"The RTS gripper technology allows greater flexibility for dairy and dessert makers," says Etienne Croquette, RTS's UK sales manager for the sector. "It does away with the need for dedicated lines or running a production line on one pot shape for one order," he claims.

The solution picks pots and places them in preformed plastic or cardboard tray at speeds up to 160 pots/minute. Two variants are available, one enables pots to be picked at high speed directly from the filler while the other collates and packs the pots downstream.

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Coding is best

A leading US manufacturer of frozen dairy dessert mixes, Galloway Company, has switched from self adhesive labels to a large format thermal transfer coding system, supplied by Norwood/Allen, to help solve the problem of detached labels on its bags of mixes.

The problem arose because of the transition from warm to cold conditions during the process which was affecting delivery and distribution.

Galloway chose a NGT series system because of its large print area, which at 160 x 155mm is claimed to be the largest on the market. The NGT 8 E can achieve 213x155mm, according to Norwood/Allen, a subsidiary of ITW. The new printer eliminates 15-20 label changes a day, reducing changeover times from 10 minutes to less than one minute.

www.itw-norwood.com

Novel nozzle for milk

A mid-speed powder filling line to handle delicate products such as milk powder without risk of damage from contact with moving parts is being launched by ADG Packaging Systems.

Aimed typically at shorter run speciality and own label products, the automatic in-line Albro Alpha weigh filler can provide speeds up to 120 packs/minute. It uses a novel filling valve with no moving parts in place of the auger dosing systems used traditionally on medium speed powder fillers.

The valve operates using a porous plastic nozzle that allows product flow, under gravity, to be regulated and shut off simply by varying air pressure. While product is being filled, positive air pressure applied through the porous nozzle fluidises the powder for rapid bulk flow. Once 90 per cent of the fill has been made, air pressure can be returned to atmospheric, reducing flow rate for final accuracy. At this point a low vacuum is applied to the nozzle causing the product to bridge immediately for a clean cut-off.

Throughout the cycle, the filling head is controlled via a weigh cell, giving an accuracy of typically $\pm 1-1.5g$ on fills up to 2kg. There are no rotating augers or scrapers in contact with the powder, preventing risk of contamination or attrition and presenting a smooth unobstructed flow path for easy and secure clean down. Elimination of moving parts such as auger drive motors and clutch-



Albro Alpha from ADG

brakes also improves reliability while reducing maintenance and capital cost, says the company.

ADG has also announced a new version of its Albro Theta rotary vacuum assisted powder filler, available in 12-36 head options. It combines gentle handling of delicate products such as milk powder with the ability to run at high speeds, typically up to 400 containers a minute.

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Flavour dosing at the double

Grunwald has shipped a new Foodliner 5 lane cup filling machine to Australia.

It is said to incorporate a number of technical developments including an in-line fruit dosing system which allows various fruits to be mixed with the base yoghurt at the point of packaging to provide faster flavour changes, as there is no need to clean the base yoghurt between flavours.

The fruit dosing ratio can be adjusted to run in synchronisation with other machine functions, says Grunwald. Other advantages are claimed to be the accommodation of different viscosities at

high speeds with and without fruit pieces, while product splash is restricted thanks to servo filling and indexing. An integrated laminar cabinet is used to sterilise the empty cups with steam and hydrogen peroxide while the foil lids are pre-sterilised using UV light.

'Double Step' tooling ensures two format sets are permanently mounted on the machine bed for fast changeovers. A slide in, slide out mechanism is incorporated for easy reloading of cups and lids.

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User friendly yoghurt filler

Packaging Automation (PA) has re-designed its Fastfill volumetric filling, heat sealing and over capping machine range to meet the needs of ice cream and frozen yoghurt product makers. These innovations have eliminated bug traps found in previous models, while lighter and simpler change parts are more 'user friendly' when frequent changes are needed. Cup Ring changeover times have been reduced by as much as 30 per cent, it claims.

The company's latest technical development has seen the introduction of MAP (modified atmosphere packaging) on its volumetric machines. This, says PA, enables it to offer extended shelf life for some products. The advance follows extensive trials with a customer on a new drink product which requires less than 2 per cent residual oxygen. The machine consistently achieved less than 1 per cent, says the company.

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Lighten up

The BF 70 is a new thermoformer of bottles for yoghurt and juice drinks launched by Adolf Illig Maschinenbau earlier this year, produces bottles that are claimed to be 50 per cent lighter than the blowmoulded equivalent and feature shorter conversion times and the flexibility to produce different bottle shapes, says the company.

A new type of process sequence produces a uniform wall thickness distribution, despite the small original area and extreme depth of draw. The machine is roll-fed and a punching station separates bottles from the web using steel cutters. The BF 70 works at speeds up to 25 cycles/min producing up to 30,000 bottles/hr. It can be linked into existing filling and sealing lines easily and efficiently, says the company.

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Lots of shapes and sizes

Campina commissioned Gerhard Schubert to develop an automated picking system to pack multipacks of different flavoured yoghurts at its Heilbronn facility.

The operation required unpacking of filled trays of single flavours, pot alignment according to the print inscription and collation using cardboard sleeves, to create the multipacks of mixed flavours.

A further requirement was that the system should be capable of processing different pot sizes and shapes. Campina uses round, single portion pots of 75mm or 95mm which differ in height and weight depending on the product, as well as four pot and hexagonal packs.

Changes for alignment, filling and closing are undertaken semi-automatically using Schubert's TLM (Top Loading Machine) technology, which shifts the machine functions from individual mechanisms to the machine software. Product specific requirements are handled using exchangeable tools.

An optical detection system sorts out the random pot formation. Two TLM-F44 robots align and pick pots at speeds between 75-



100 pots/minute and ensure the required assortment is achieved.

Another TLM-F2 robot picks up the groups of pots and places them in cardboard sleeves. Trays which were previously emptied are re-filled with the multipacks.

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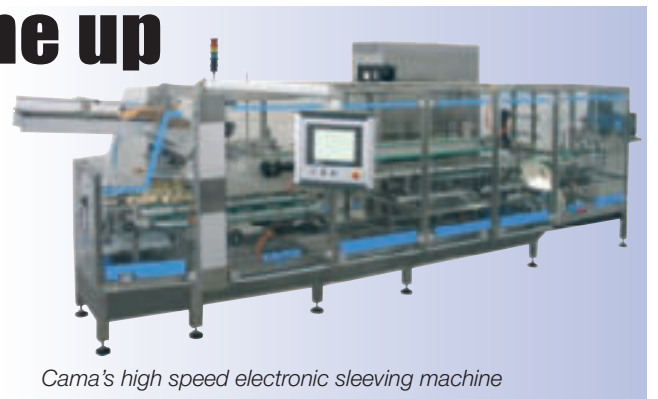
CAMA line up

CAMA Group has recently completed a project to tray pack single and OTT sleeved bottles of probiotic yoghurts at up to 68,000 bottles/hour for a major European dairy producer.

The line takes the bottles from the outfeed of the filler and delivers loaded trays to the infeed of the palletisation unit.

The machine is interfaced with upstream processing equipment and transfers bottles in two lanes to buffer tables where accumulation for up to 7 minutes is possible should downstream operations halt.

Bottles for group packing are then transferred to the CAMA sleeve which can over wrap the containers in two lanes in various configurations. These packs are then fed to the robotic unit for placement



Cama's high speed electronic sleeving machine

into trays which have been pre-erected on a CAMA forming machine.

The system can also pack single bottles into cartonboard trays. They are fed via a line running parallel to the buffer tables. It is able to handle three different bottle sizes up to a maximum speed of 285 bottle packs/minute in a 2x2 configuration or 95 trays/minute for single bottles in a 3x4 configuration.

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Lucky lotto for Chocomel

Domino has helped one of the world's largest dairy companies, Friesland Foods, to improve its track and trace processes with the installation of several A-Series



continuous ink jet printers and C-Series outer case coders.

The A-Series equipment also enabled the customer to introduce a lucky number lottery promotion at no extra cost to mark the 75th anniversary of its Dutch Chocomel brand. A sophisticated Windows-based Domino Editor GT controller, capable of processing large quantities of variable codes, managed an A200 to print unique numbers on to each Chocomel carton.

The purchase of 10 A400 and eight A200 printers are being used to apply best before dates and batch or line numbering. A customised version of the A-Series, with dual heads was also supplied to meet requirements for more than four lines of print.

The C100 large character printer for outer cases was particularly suited to the Friesland Foods operation, says Domino, as its sealed ink container meets the company's stringent hygiene requirements.

The dairy company financed the equipment through Domino's 'Relax' five year pay-per-code package which enables it to expand, upgrade or exchange existing systems as well as leaving maintenance and consumable planning and operations to the supplier.

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The long and short of it!

Astec Conveyors has completed a £270,000 contract to convey blocks of warm cheese over 300 metres down a hillside from the production plant to a new cool storage facility at South Caemarfon Creameries.

Used to transport 20kg of vacuum packed cheeses, the conveyor had to be constructed on platforms and with walkways to avoid buildings and other site services as well as spanning a road and a river.

The construction, which can span 15 metres unsupported, includes a watertight stainless steel tunnel and galvanised platforms and walkways, and comprises modular plastic belt conveyors; indexing

conveyors to facilitate non-contact accumulation of the cheese; low, back pressure chain conveyors; gravity rollers and a brake metering belt for the various stages of the blocks' journey. Previously the cheese was transported between the two units by lorry.

In another dairy installation Astec has supplied Lubborn Cheese with an accumulating chain conveyor and lowerator for its palletising operations handling 10 500kg pallets/hour, although Astec says the system can run at far higher capacities, up to 60 1500kg pallets/hour.

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The BG2800 Zip machine



The Pocket Bag - recloseable tab with an adhesive strip, zip or label

Zips in the pocket

Recloseability in cheese packing is increasingly being seen as part of the basic specification, according to Chris Bolton, sales and operations director at PFM Packaging Machinery.

As a result, PFM launched a new high speed MAP flow-wrapper for reclosable zipper packs earlier this year. (See MU Jul/Aug p12). In fact, the new BG2800 Zip machine follows the introduction by PFM of two other form-fill-seal machines capable of producing various types of recloseable packs for the cheese industry: the Vetta bagger used principally for grated cheese and the MAP Pocket Bag flow-wrapper.

The Pocket Bag is based on the company's established long-dwell seal Scirocco flow-wrapper, offering speeds up to 120 - 130 packs a minute.

The machine first die-cuts one side of the wrapping film with an extended V-shaped notch to provide slightly tapered flaps and the product is then loaded onto the film from a belt infeed and carried through a forming box set at 90° to normal so that the longitudinal seal is made at the side. This

ultimately becomes the head of the wallet style bag.

The longitudinal seal is peelable and made at the base of the flap, which is then folded over and held in place by a pressure sensitive label printed on-line including variable information. Cross-sealing completes the pack. Once opened, consumers can reclose the bag using the label.

For grated cheese the PFM Vetta is a multi-format bag maker capable of producing stand-up pouches and 'quad' packs with reinforced corners, in addition to standard pillow pack bags. The variable axis sealing jaws, which can be turned horizontally through 90deg also make it possible to produce Doypack style bags with a bottom gusset.

The Vetta can be equipped to add zipper tape either in web direction or cross web, depending on bag style required, and will also produce bags that can be reclosed via adhesive tape introduced into the pack as it is made.

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Ultra clean filling from Waldner

A new concept for ultra clean filling and closing of dairy products, the Waldner Dosomat 20.8 Compact AS Flexo, is an 8 lane machine capable of outputs above 400 cups/minute.

It has three typical cup formats - 71, 86 and 91mm diameters - and does not require a traditional laminar air flow cabinet as the complete filling/lidding process is enclosed in a sterile air tunnel, says Waldner.

Cups are de-nested using positive mechanical scrolls assisted by vacuum and are cleaned using intense UV light. The non-drip filling head uses tappet valves. Options are available for the pre or post-filling of fruit particulates, jams, and syrups.

The initial closure uses plain



The Waldner Dosomat 20.8 showing the packaging cleansing area, main filler and sterile air tunnel

rollstock, print registered or pre-cut foil. Maximum UV exposure for cleaning these is achieved through an intermittent motion as the material passes the light. A setter unit presses on a lid to complete the closure process. Coding is undertaken using a Waldner designed traversing unit which, says the company, gives 'total control' during this operation.

Integral case packing within the constraints of the 5 x 1 metre wide footprint completes the turnkey system. Elau PacDrive servo units ensure quick changeover.

The machine is also available in a rotary version and both formats have economic footprints, claims Waldner.

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DAIRY DIGEST

■ **Sealed Air** has introduced a co-extruded shrink bag for low gassing hard and semi-hard cheese packing and curing. The OSB 4550 shrink bag can be used for curing times up to six months and for industrial and consumer unit packing.

The crease and fold features of the bag allows the machine operator to overlap the material during the sealing and vacuum process, thus enabling higher output rates on vacuum chamber machines, claims Sealed Air. Depending on machine configuration and product size up to 60 bags/minute can be achieved.

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■ **Tetra Pak** says its new Tetra Lactenso aseptic dairy processing line includes energy and product saving technologies, including IntelliCIP and Aseptic Energy Hibernation.

IntelliCIP is a cleaning programme which can reduce chemical usage by 20 per cent, it says, as well as being able to adjust the cleaning sequence to the exact time and input levels required. The Aseptic Energy Hibernation unit is claimed to lower steam, water and electrical consumption by as much as 75 per cent when the UHT system is in stand-by mode. www.tetrapak.com

■ **Enercon** now offers remote control monitoring on lines equipped with its induction sealing systems. This enables users to incorporate induction sealing into sophisticated line control and SCADA options via PC.

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dairy, yoghurts & desserts - case & tray packing

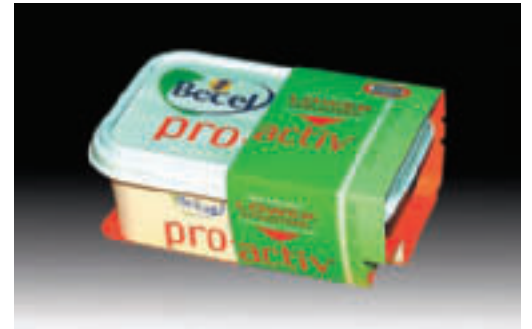
The cartoning message

Kliklok International has installed three PRIMA end-load cartoners at Unilever Bestfoods' plants in UK, the Netherlands and Germany, where they are packing Becel pro-activ® spreads.

The challenge for Kliklok was to combine cartoning with an automatic product feeding system, plus the insertion of an information booklet, at speeds above 220 packs/minute.

A five-crease sleeve was developed with Unilever so that a common profile existed across all the factories. The rotary feeder on the machine erects the carton and accurately shapes the pack to allow the inner product retaining tab to be folded and formed, locking the product in place.

Kliklok has also developed a special closing mechanism on its ECT500 glue-form erector for a major Scandinavian cheese maker. The hexagonal carton and lid required a half top-loading and half wraparound solution.



The base is formed on a standard ECT500 erector, but with one side open. The product is pushed through the opening and the side glued into position. The lid is folded and glued using a modified single flap closer. Speeds reach 80 packs/minute.

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Packed with liquid energy

Multipack cartons of high energy liquid dairy products supplied to hospitals by Dutch dairy group Nutricia (Holland) now carry large print & apply labels that wrap around the corner to allow the cartons to be easily identified within fridges from their front or side.

Nutricia has installed two Logopak 920 print & apply labellers on a new production line. The two machines run in tandem to eliminate risk of downtime, as the product has to be chilled immediately after manufacture. Speed is 30 a minute on cartons measuring 300 x 300 x 450mm.

A label 200mm wide x 80mm deep is printed

long edge leading to ensure that bar codes are printed in picket fence orientation for best scanning results. The label is then applied to the leading face of the carton and folded round the carton side to give adjacent side labelling.

The tandem controller supplied for the two machines allows the variable label data to be recalled only once to be sent to each machine, ensuring commonality of data. Scanners are integrated on each machine to ensure label presence and that all bar codes are legible.

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Dimac St@r turn for Friesland

Friesland Group turned to Dimac, part of the Aetna Group, to produce different pack types on the same line prior to palletising at its plant in Lumen, Belgium. The facility produces whipped cream and milk drinks in up to 500 varieties.

Initially three Dimac St@r T45 tray packers were acquired with the capacity to carry out 18 different formats at up to 45 packs/minute. Friesland produce a large number of private label products with format changes up to every 3-4 hours. To give flexibility the St@r T45 utilises a patented CAD

system which allows 64 formats to be introduced on each machine with average changeover periods of less than 10 minutes, says Dimac. Formats are recalled using icons on the Allen Bradley touch screen.

The machine features unwinding control of the film based on the trajectory described by the wrapping bar. Electronic cams aid quick cutting and automatic centring at up to 60 packs/minute.

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