

Kautex prepares for surge in orders

Sales of blow moulding equipment slipped the last two years but the signs of upturn are obvious. Kautex Maschinenbau overachieves this year, said CEO Dr Olaf Weiland

Blow moulding machinery maker Kautex Maschinenbau will be investing €1.5 million for a new building project at its plant in Bonn, Germany. The extension will be commissioned in August next year, Dr Weiland announced at a press event at the K show.

The new 1,500 m² building will house a new technical centre. The space at the factory currently used for the technical centre will then be freed up for additional assembly capabilities. Meanwhile, Kautex is re-organising its assembly process, and combined with the newly allocated factory space, expects to raise overall capacity by 40% to 50%.

Kautex estimates the turnover this year to be €70 million, which is around the same level or even better than sales in 2007. Consolidated machine sales up to September had already exceeded the whole of 2009 by 20%. This is a welcome turnaround from 2007 to 2009 where sales year-on-year fell 5% and 12%, respectively. Dr Weiland projects that next year will be a very good one because forward bookings for 2011 so far has already reached 50% of forecasted annual turnover.

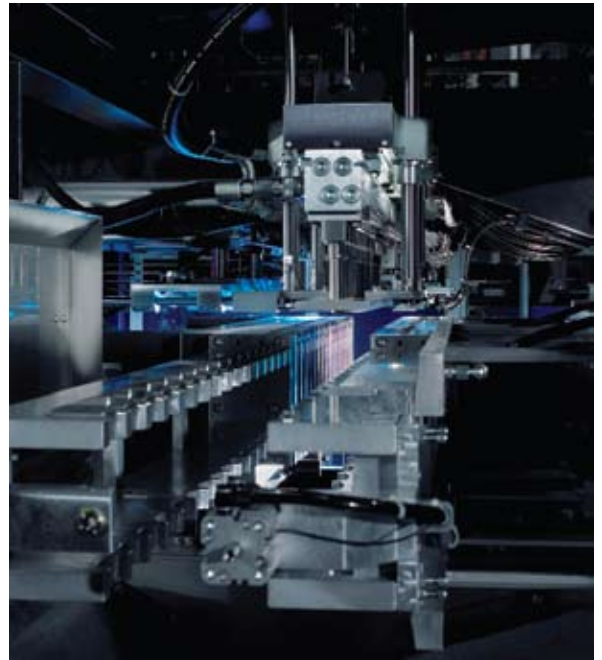
In China, Shunde Kautex is hiring more workers to meet increased capacity, after having laid some off during the downturn.

"The demand for packaging in Asia is something that our China plant is benefiting from," said Dr Weiland.

About 90% of blow moulding machines Kautex sells to Chinese customers are for the packaging industry. Dr Weiland said that 35% to 45% of machines produced in Bonn were exported to China over the past 3 to 5 years. He also observed strong investments in machines for car production in China and more automotive parts such as multi-layer fuel tanks are being produced locally using Kautex machines.

Automotives

The US state of California has more stringent regulations for vehicular emissions than federal standards issued by the US Environmental Protection Agency (EPA). Since 1 January 2009, new cars sold in California have to display an Environmental Performance (EP) label indicating greenhouse gas emissions



Deflashing station in a KLS 14-100 high performance blow moulding machine

and smog emissions of both gasoline- and diesel-run models. Vehicles in California are categorised according to their emission levels, such as PZEV (partial zero emission vehicle) or the latest classification LEV3 (low emission vehicle). Since California is one of the largest automotive markets in the US and the world, Dr Weiland believes that in due time, other US states will follow suit as some already have. Besides legislation, popular demand for greener cars has driven up the number of eco-friendly options.

In pursuit of lower emissions, some automotive components may have to change or upgrade. For instance, turbochargers, which are so far reserved for premium cars may become more widely used in other models. More carmakers are working towards more

efficient engines and smaller fuel tanks. Kautex is marketing its proprietary C3LS solution for producing fuel tanks for PZEV and LEV3 standards. Dr Weiland said Kautex is working with some Chinese companies to introduce C3LS to parts produced in China. This will be a shot in the arm for Kautex, which claims to control three-quarters of the plastics fuel tank blow moulding machinery sector.

Industrial applications

In India, Dr Weiland said Kautex is working on a turnkey project for blow moulding glass fibre-reinforced LPG cylinders. Besides hardware and engineering, Kautex also designed the line as well as providing liner, valve connection and winding expertise. The line is scheduled to start production summer next year.

In the US, business has been rather slow for a number of years but sales has picked up in the last 6 to 9 months.

"Our 2010 order intake has exceeded our expectations by a factor of two," said Dr Weiland, "mostly in our 'others' segment." He was referring Kautex's third business segment after the major two, which are Packaging and Automotives.

The recent demand for blow moulding machines in the US is mostly for housing and garden parts, in some cases for the production of flat panels as large as 7 feet by 7 feet. Investments in automotive fuel tanks, however, remain low and customers usually request for re-servicing of existing machines.



Kautex Maschinenbau CEO Dr Olaf Weiland

Blow Moulding

New ISBM bottles for dairy beverages

Injection stretch blow moulding (ISBM) of HDPE bottles for dairy goods offers many benefits over the conventional extrusion blow moulding (EBM) method, says French packaging solutions company Sidel. This year, Sidel introduced the SafeSense HDPE bottle made by ISBM that gives similar capping quality to PET bottles without a sealing lid.

When produced by ISBM, a HDPE bottle can weigh up to 20% less than a similar one made by EBM. For instance, the average weight of a 1-litre EBM-type HDPE bottle is about 28 g to 35 g, whereas the same HDPE bottle made by ISBM weighs just 22 g to 28 g. The SafeSense bottle, which uses a preform design by Sidel, weighs only 22 g. Furthermore, the use of a preform instead of aparison yields more consistent weight and

thickness.

Making bottles from preforms separates plastics transformation from bottle manufacturing and conditioning. At 2,000 bottles per hour per mould, productivity from ISBM is higher than EBM's 800 to 1,000 bph/mould. For Sidel customers, they can benefit from technology currently used for producing PET bottles, including the Bottle Switch format changeover solutions or integrated blow moulding-filling-capping processes such as Combi.

Even when customers change to ISBM, they can continue to use the same HDPE material and existing recycling equipment. Bottlers will appreciate higher productivity and lower waste as well as lower bottle cost and carbon footprint.



Krones breaks weight barrier

This 330-ml PET bottle Krones displayed at the K show weighs just 4.4g.

Even with wall thickness of 0.06 mm to 0.1 mm, Krones said the bottle could withstand an internal nitrogen pressure of 1.5 bar. The ultra-thin walls are achieved using Krones' NitroPouch concept and the design has won several packaging awards.

According to Krones, the NitroPouch system satisfies the requirements for top-loading capabilities during storage in a warehouse and in transit. The PET bottle will retain a grip-friendly and stable state when internal pressure stays above 0.3 bar.

Tests conducted by Krones showed that pressure sometimes fall to 1 bar and will fall to the minimum residual pressure only after several months on a refrigerated shelf.

The NitroPouch comes with a customised Bericap Hexalite neck finish, weighing in at 1.3g.



Improved clamping unit for Bekum machines

German company Bekum has upgraded the features of the electric blow moulding machine first introduced at the K show in 2007. The new Eblow x07 D now comes with mould plate widths between 350 mm to 700 mm and clamping forces between 80 kN to 240 kN on single and dual-station units. Bekum adds that the new clamping unit will be available for hydraulic machines soon.

The C-base frame on clamping unit was re-developed for improved force generation and distribution over the whole mould area, while maintaining precision and parallelism

of the closing plates.

In addition, the calibration point keeps its position on the mould parting line when the mould closes. The bottom calibration system is easy to install and change, which means better production output for the end-user.

The mould closing motion on the new clamping unit uses a proprietary drive technology comprising both servo motor and hydraulic transmission. This system, developed in cooperation with Bosch-Rexroth, has a drive that retains pressure for a long time and gently absorbs fast force changes. It boasts high energy efficiency and low noise emissions.

The closing and opening movements on the mould carrier unit are smooth and quick on linear guides, thus reducing down time. The movement of the clamping unit from blow head to calibration position reaches an average speed of 680 mm/sec. This means that a 33 mm stroke requires just 0.44 seconds and Bekum machines can maintain an accuracy of 0.01 mm.

