

START

World's fastest packaging machine now environmentally enhanced

Capable of delivering dry cycle times of less than two seconds, the latest version of Sumitomo (SHI) Demag's EL-Exis SP retains its title as the fastest injection moulding machine for packaging manufacturers on the market today. Achieving exceptional process consistency through acceleration, mould movement and deceleration, the range now saves a considerable amount of energy too.

The machine is aimed squarely at high volume manufacturers of polymer products, including caps and closures, thin wall containers and lids. Fine tuning existing features, combined with several new additional options, is giving packaging moulders greater control over their process, in addition to lowering operational costs and delivering energy savings.

Central to the machine's fast cycle time is the hydraulic accumulator, which achieves injection speeds of up to 1000 mm/s and accelerates at up to 32 m/s² (or more than six times the rate of a conventional fast cycling machine). With the introduction of a new control valve regulating the hydraulic pressure during the loading of the accumulator, the range now consumes up to 15% less energy than previous generations of El-Exis machines. This saving is dependent upon the packaging application, moulding cycle time and process parameters.

Being able to adjust the accumulator charging to the injection pressure required for the exact moulding process not only lowers energy usage, but also reduces wear and tear on parts.

Additionally, to help factories make informed and conscious energy consumption decisions, the machine now includes an integrated energy monitor as standard. *"Having real-time access to energy data helps production managers to gauge how, when and where energy is being used, removing some of the guess work when optimising,"* comments Sumitomo (SHI) Demag's UK MD Nigel Flowers.

Of course, water is another commodity used widely during the moulding process. Generally speaking, for cooling purposes, the colder the water the less you need. However, chilling water is an expensive activity. Therefore, for some applications, Sumitomo (SHI) Demag has increased the maximum inlet water temperature on the machine's oil cooler to 35°C. *"This means that the machine can run from tower water, further reducing running costs,"* explains Nigel.

Given the growing popularity of stack moulds in food packaging, additional linear guidance can be added to the machine on request. As well as increasing productivity, this feature helps moulders to minimise friction and protect the longevity of the mould.

Mould safety technology, previously only available on the company's all-electric series, has also been extended to the El-Exis SP. *"This mould safety system is designed to protect moulds from damage by foreign objects and prevent part defects,"* emphasis Nigel. *"Rather than simply slamming the mould*

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open and closed, the sequence should be smooth and controlled, which is exactly what our servo-driven technology is designed to do without incurring cycle time penalties.

“The enhanced safety, when integrated with other features, can significantly reduce the frequency for scheduled machine and mould maintenance,” adds Nigel.

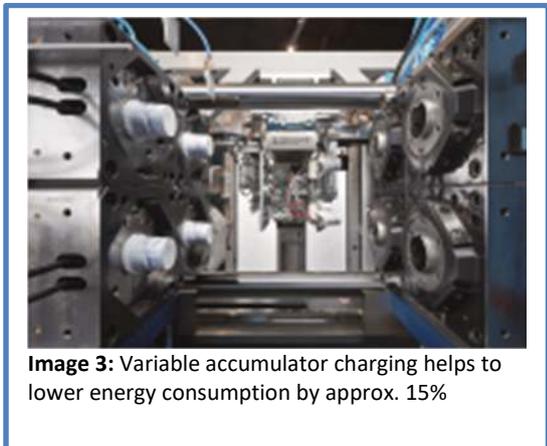
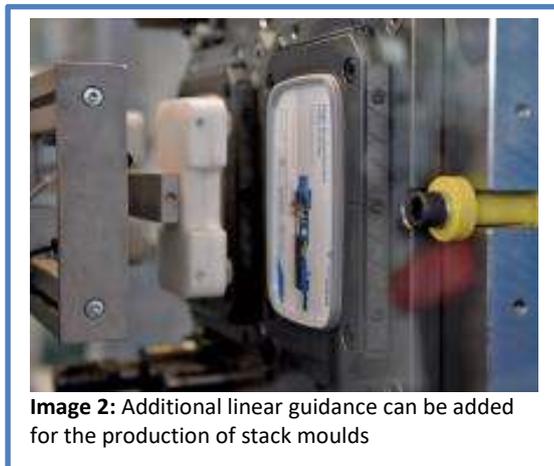
Ease of use has also been considered during the upgrade. The NC5 plus control system now includes a feature which shows operators how each change to machine parameters would affect performance, optimising the quality of moulded components while helping to reduce set-up times.

In Mould Labelling (IML), multi-component moulding for premium packaging and more complex tamper evident caps, along with compression injection moulding remain part of the standard repertoire of the El-Exis SP.

The El-Exis SP is available with a clamp force range of between 150 and 750 tonnes.

ENDS.

Images/captions



Notes to the editor

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Sumitomo (SHI) Demag Plastics Machinery UK Ltd. is a wholly owned subsidiary of Sumitomo (SHI) Demag, Germany, established in 1956. Sumitomo (SHI) Demag specialises in the production of electric, hybrid and servo hydraulic injection moulding machines with clamping forces between 250 kN and 20,000 kN. With over 125,000 machines installed worldwide, over 65,000 of which are full electric, we supply machines to all sectors, including automotive, packaging, electric/electronic, medical and pharmaceutical, building products and leisure, and assist injection moulders to meet their energy management, quality assurance, lean manufacturing and Total Cost of Ownership strategic and production goals. The company's UK and Ireland business delivers world-class service and support to more than 400 customers, supporting in excess of 1,800 injection moulding machines. Sumitomo (SHI) Demag won Best Technology Application of the Year two years running at the Plastic Industry Awards (2015 and 2016). Our UK-based Training Academy is a Cogent Skills Partner and delivers six structured and bespoke polymer processing and industry-led training and development courses, aimed at all operational levels, from new starters to tool setters, engineers and asset care managers. All course content has been designed to enhance precision, productivity and Overall Equipment Effectiveness (OEE).

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