Press release
07 November 2012

All-electric IntElect smart injection moulding machine and hybrid El-Exis SP high-speed machine set to prove their talent for packaging

Sumitomo (SHI) Demag Plastics Machinery (France) S.A.S. will be taking part in the Emballage 2012 Packaging Exhibition in Paris.

The French subsidiary of the German-Japanese machine manufacturer Sumitomo (SHI) Demag will be presenting on Stand 6 M 119 as a full-range supplier in the field of packaging at the Emballage in Paris from 19 to 22 November. A hybrid El-Exis SP high-speed machine will be manufacturing a 1 l bucket with IML labels, while a container application will also be displayed on an all-electric IntElect.

The French subsidiary company of Sumitomo (SHI) Demag Plastics Machinery (France) S.A.S. will be presenting an IntElect 100-340 with 1,000 kN clamping force in Paris, producing the 130 ml containers made of polypropylene (PP) in a 2-cavity mould from Rouxel S.A. The parts, weighing 7.4 g, will run with a cycle time of under 2.5 seconds. An integrated linear robot from Machine Pagès, Foncine Le Haut/France will remove the parts from the mould and place them on a conveyor

belt. The periphery will be set by Martiplast, Martignat/France.

The IntElect smart, with its high performance and availability, larger tie bar spacings and linear guides for high-volume and heavy moulds, is ideally geared to the needs of the market. Its excellent reproducibility with outstanding processing capability values forms the basis for zero-error production. Drives specifically developed for injection moulding contribute towards ensuring high efficiency and dynamism. The linear guides for the movable sheet as well as further optimised kinematics of the 5-point double knee lever ensure a high level of smooth running. Through the interaction of the seamless monitoring of the processing forces during the closure movement and the quickly reacting machine control, the highly sensitive activeQ mould protection system provides effective protection for valuable moulds against wear or damage.

Like all of its electric injection moulding machines, Sumitomo (SHI) Demag manufactures the IntElect smart in its centre of competence for electric machine technology in Wiehe, Thuringia. It is programmed with eight clamping forces ranging from 500 to 4,500 kN.

El-Exis SP: High-speed machine benefits from Speed Entry device during IML.

As a further highlight, an El-Exis SP 250-1600 high-speed machine with a two cavity mould by Collomb Mecanique, Oyonnax/France will be producing 1 l buckets with IML labels in less than 4.5 seconds. Machines Pagès, Foncine Le Haut/France, will be supplying the equipment for the label magazine as well as the batch station. The 38 g light buckets made of

polypropylene will be fitted with an authenticity tab and have a wall thickness of 0.65 mm with a flow channel/wall thickness ratio of 280.

The highlight of this application will be the side-attached Robot Speed Entry 350 MP, which Sepro Robotique has developed jointly with Machines Pagès, the specialist for IML automation. The side entry device covers machine sizes up to 5,000 kN clamping force and masters driveways of up to 2,200 mm. The Visual 3 controls from Sepro communicate with the NC5 Plus controls of the injection moulding machine in real time during production, ensuring an optimum production run is guaranteed throughout and idle times are reduced to an absolute minimum.

The hybrid El-Exis SP high-speed machine particularly demonstrates its advantages with thin-walled products: high performance is achieved with low energy consumption and this makes a large contribution towards production cost-effectiveness. Due to the hybrid drive design with energy recirculation and parallel operation, the machine requires up to 40% less energy compared with hydraulic high-speed machines.

A key feature of the El-Exis SP is the way in which mould movement has been optimised. The opening and closing of the mould can represent up to 60% of the cycle time in high-speed production. The acceleration of just the mould movement alone means that this effect can be reduced by up to 10% in favour of a noticeable increase in productivity.

For high-speed processes as well, the first step to optimising process setting is the visualisation of energy

consumption. The El-Exis SP therefore likewise has activeEcon energy consumption analysis. The activeCool&Clean filter system also has the effect of ensuring optimum oil quality and long oil service lifetimes of up to 40,000 hours so as to ensure maximum availability.

A further crucial contribution towards ensuring production efficiency with the El-Exis SP is provided by activeAdjust. The function allows for individual access by the customer to the regulatory engineering of the injection moulding machine. Using a simple slider system allows for optimum regulating features to be selected, allowing the El-Exis SP, which is designed to cover a wide range of applications ex works, to be set to a certain product in a targeted manner. By using activeAdjust, acceleration and deceleration ramps can be optimally selected for a hard or soft driving mode, according to mould. This function helps to reduce cycle times and achieves an increase in production performance of 3 - 5%. Even the dynamism with which the switch from injecting to hold pressure is effected can be influenced so as to achieve the highest parts quality. With this exhibit, Sumitomo (SHI) Demag, as a specialist in the packaging field, will be demonstrating once again that stimuli for developments capable of handling the demands of the future are continually being devised with skilled partners in a sector-focused manner and then distributed world-wide from Schwaig.

Sumitomo (SHI) Demag Plastics Machinery (France) S.A.S.

Emballage, 19 - 22 November 2012

Parc des Expositions Paris-Nord Villepinte, France – 6 M 119

Sumitomo (SHI) Demag Plastics Machinery (France) S.A.S.

As a plastics processor, you are faced with ever tougher international competition. Even in France, well-positioned sites are increasingly feeling the pressure in the race to cut costs. This is when technology plays the key role! Sumitomo (SHI) Demag France offers you top quality injection moulding technology. With our wide variety of products, we can supply you with the optimum solution for every application in France. Allow us to impress you with our flexibility and our short delivery times! Sumitomo (SHI) Demag's technology guarantees parts with excellent quality. In addition, our technical service is always available to you for technological upgrading, maintenance work and the provision of training. Are you planning to diversify your activities and to decentralise your sites? If you would like to build up production capacities abroad, you can rely on our support - with injection moulding machines, advisory service and customer service. We will be at your side in Morocco, Tunisia and Algeria and provide you with customer care in the new markets of Eastern Europe, such as Poland and Slovakia. Sumitomo (SHI) Demag offers you injection moulding machines in a wide variety of types and - what is especially important - with a modular form of construction. This allows for individually designed customer solutions to be devised and simplifies updating through robots and other peripheral devices. Supported by us, you will achieve

high productivity with economical systems, whether the versions are simple or extremely complex.

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<IntElect_100_340>

The electric IntElect injection moulding machine - the model shown here has 1,000 kN clamping force.

Photo: Sumitomo (SHI) Demag

<IntElect_100_Container_130ml >

130 ml Container, manufactured on an all-electric IntElect 100-430 injection moulding machine in a 2-cavity moud from Rouxel S.A.

Photo: Sumitomo (SHI) Demag

<El-Exis_SP_250>

Combined with a newly developed high Speed Entry from Sepro, the El-Exis SP 250 proves its high-speed qualities in the manufacture of IML-decorated buckets in the shortest time and with the highest quality.
Photo: Sumitomo (SHI) Demag

<El-Exis_SP_250_IML_Bucket>

The 1 l buckets made of PP are produced using a two-cavity mould on the hybrid El-Exis SP 250 (2,500 kN) high-performance machine in a cycle time of under 4.5

seconds and then IML-decorated and removed using the new Speed Entry from Sepro Robotique.

Photo: Sumitomo (SHI) Demag