

Precision. Power. Productivity. – Presentation of high-performance exhibits at Fakuma

Sumitomo (SHI) Demag at Fakuma 2018

Schwaig, September 3, 2018 – At Fakuma 2018, Stand 1105, Hall B1, Sumitomo (SHI) Demag Plastics Machinery GmbH has chosen the motto of “Precision. Power. Productivity.” to showcase the company’s commitment to continuity and its high level of expertise in three core target markets. This year, the IntElect S will run a medical engineering application to demonstrate the new all-electric machine series for high-speed parts. An EI-Exis SP 200 will run a high-speed IML application from the packaging segment and a versatile Systec Servo with advanced IMD technology, a new design and functional integration for the core segment of automotive applications.

New launch: the all-electric high-speed IntElect S machine

The launch of the compact high-speed version of the IntElect S at Fakuma 2018 will also mark the beginning of a new era for the German-Japanese injection moulding machinery manufacturer Sumitomo (SHI) Demag. In the high-speed segment up to 1,800 kN both standard and high-speed machines will now run with all-electric drive technology. “Our experience with about 60,000 all-electric machines delivered company-wide has shown us that it was time for a step ahead,” CEO Gerd Liebig explains. “Our in-house drive technology has advanced to a level that delivers not only fast cycle times and unparalleled process stability but also guarantees maximum energy efficiency.”

The high-speed, all-electric IntElect S injection moulding machines are available with clamping forces between 500 kN and 1,800 kN and with injection speeds between 350 and 500 mm/s. They are specially built for high-speed applications with cycle times between 3 and 10 seconds. Thanks to its optimised configuration of motors and drives, this model outperforms standard IntElect machines in terms of mould movements, injection and metering speeds and ejector movements, which translates into significantly reduced cycle times.

“We are perfectly prepared for high-speed engineering applications,” product manager Peter Gladigau explains, “and extensive lifecycle tests under extremely harsh conditions have proven the superior performance and reliability of our IntElect S. This machine’s characteristics come into their own when it is used for medical engineering applications. As such, we consider it a substantial enhancement of our solution portfolio.”

Medical application live: IntElect S with Medical package

At its Fakuma stand in Hall B1, Sumitomo (SHI) Demag will premiere an IntElect S 130/520-450 with a package of options specially developed for medical engineering requirements, ensuring a clean production environment (Good Manufacturing Practice). The 32-cavity pipette application focuses on quality assurance, traceability and supports customers with their product validation. For this system, manufacturer Waldorf Technik of Engen/Germany has supplied its VarioTip solution, one of the most compact automation systems with 100% camera inspection for sorting pipettes according to cavities into the corresponding racks. The system is equipped with a Max Petek laminar flow hood and connected to a master computer from bfa solutions, which ensures the perfect traceability of process data as well as monitoring changes to the set machine data. "The machine design with minimal surface areas and encapsulated mould space and our expertise in the all-electric segment are the recipe for our success as an innovative system supplier for medical engineering applications," says Pietro Scattarreggia, Director Business Development Electronics & Medical at Sumitomo (SHI) Demag. "The special solution that was tailored to our NC5 control and delivers real-time visualisation, and traceability guarantees maximum product safety for our system," Anatol Sattel, Key Account Manager Medical Applications at Sumitomo (SHI) Demag explains. "Not only does this solution provide a better overview of the process, it also facilitates the normally very complex documentation tasks for quality management and assurance." The customer benefits from a significantly more convenient validation process that prevents uncontrolled external process interferences.

IntElect S with new SDR Speed 7 top-entry robot

Other IntElect exhibits shown at partnering stands focus on standardised automation solutions as well dynamics and performance. Parallel to the launch of the IntElect S, Sumitomo (SHI) Demag will also introduce the "SDR Speed" robot series. These two components are at the heart of the new performance package for applications with cycle times of between 3 and 10 seconds. Thanks to the substantially increased dynamics of the SDR Speed series the shorter removal and mould opening times of the IntElect S series will be used to the best advantage.

At Stand A1-1203, run by Sepro Robotique GmbH, an IntElect S 180/ 560-700 running with a SDR Speed 7 robot will demonstrate this impressive performance capacity. The sample thin-wall application runs with a cycle time of less than 4.8 seconds.

In addition to this, our partner will show an integrated automation solution for the production of a technical POM (Duracon/ Polyplastics) component on an IntElect 50 with a SDR 5S. Customers benefit from the small footprint of this all-in-one solution: injection moulding machine, robot and conveyor belt .

Specialist for ancillary equipment and temperature control systems ONI-Wärmetrafo GmbH (Stand A5-5301) demonstrates these benefits on an IntElect 50.

EI-Exis SP 200 with high-speed IML application

“The fourth generation EI-Exis SP is still the fastest injection moulding machine in the world,” says Arnaud Nomblot, Director Business Development Packaging at Sumitomo (SHI) Demag. Two years after its launch, he is still happy with the machine’s performance. From the very beginning, this machine concept has guaranteed high performance in conjunction with availability and reliability, says Nomblot. “This is because our rule is written in stone: Advancement must never sacrifice quality for speed. Thanks to its dynamic hybrid drive and intelligent accumulation control, the EI-Exis SP not only delivers an impressive performance in terms of acceleration, mould movement and deceleration but also outstanding process constancy and precision paired with an extremely energy efficient production.”

The live demonstration at the Fakuma stand is a perfect example for complex packaging processes: a production unit with a high-volume output, low part weight, in-mould labelling and cycle times below 3 seconds. In a four-cavity mould (Simon), this system produces decorated food cups from polypropylen (Borealis). It is equipped with an automation solution (Beck Automation). A high-speed side-entry robot places the labels (Verstraete) into the fixed mould half, while removing the finished cups from the moving mould half and stacking them.

Systec Servo: Advanced IMD technology with new decoration and functional integration

With a versatile, energy-efficient Systec Servo 280/630-1450 with integrated functional unit for decoration, curing, purging and quality control, Sumitomo (SHI) Demag presents its contribution to the IMD surface decoration segment. “We came up with interesting technical advancements for Fakuma 2018,” promises Henrik Langwald, Director Automotive Business Development. “Together with our partner Leonhard Kurz, we will present an automotive application: a door sill with a new day/night design is initially decorated by IMD and then covered with functional foil for touch functionality.” All IMD process steps are integrated in a production unit with automation that was specially standardised for IMD applications.

Throughout their long-standing successful partnership, Leonhard Kurz, HBW Gubesch, Kist and SAR have continuously advanced their application process as well as their machine and automation technology. The integration of production and process data into a higher-level MES has made both the quality and the production performance more transparent and controllable. A unique data matrix code identified each individual part and ensures its traceability even at the next production stage. At the Kurz

partner stand, the second production stage will use FFB (Functional Foil Bonding) to provide the IMD part with a touch sensor. This stage of the process is also monitored by a higher-level MES supplied by bfa Solutions.

“In addition to the application and its automation, visualisation requirements and the need to analyse process data are becoming increasingly important. This is why process integration into higher-level MES systems plays a crucial role. Our process integration into an MES system supplied by bfa Solutions proves our system expertise and extensive experience in the industry,” says Langwald. Analogue to the other two live exhibits at the stand, the Systec Servo is also equipped with downstream systems supplied by Piovan.

myConnect digital services

At the Fakuma stand, Sumitomo (SHI) Demag has designated a self-contained section for all issues of network integration and digital services. There, customer can access an internet platform for on-line support and diagnostics and documentation, select remote monitoring of their production and order spare parts. Visitors can use the terminals to find out more about the myConnect services.

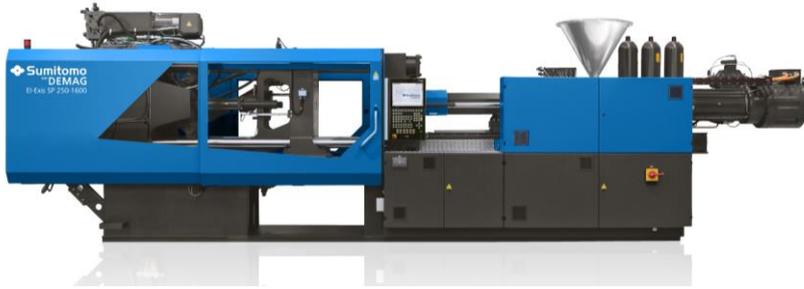
Sumitomo (SHI) Demag at Fakuma 2018: Hall B1, Stand 1105

Illustrations



> *IntElectS_100.jpg* <

New all-electric IntElect S machine series for high-speed applications



> EI-Exis_SP.jpg<

The EI-Exis SP high-speed machine is leading in the production of thin-wall containers and other plastic packaging applications



> Systec.jpg<

Systec Servo with advanced IMD technology, a new design and functional integration

Photos by Sumitomo (SHI) Demag

→ Save the Date – Invitation to our Press Conference

You are invited to join our press conference FAKUMA! Come hear our executives talk about the latest Sumitomo (SHI) Demag developments and how we are getting ready for the future.

Wednesday, October 17, at 9.00am
Room Oesterreich, Conference Center West, 1. Floor

Sumitomo (SHI) Demag Plastics Machinery GmbH

Sumitomo (SHI) Demag has shaped the development of the plastics industry from its very beginning. As a specialist for injection moulding machines for plastics processing, Sumitomo (SHI) Demag and its Japanese parent company are leading the industry.

The global development and production network of Sumitomo Heavy Industries and Sumitomo (SHI) Demag is comprised of four facilities in Japan, Germany and China with more than 3,000 employees. The product portfolio includes all-electric, hydraulic and hybrid injection moulding machines with clamping forces of between 180 and 15.000 kN. With more than 125,000 installed machines, Sumitomo (SHI) Demag is present in important global markets and ranks among the largest manufacturers of injection moulding machines in the world.

At Sumitomo's headquarters in Chiba, Japan, the company manufactures machines with clamping forces in the small to medium range. Nearly 95 % of all delivered machines are equipped with an all-electric drive concept. Sumitomo (SHI) Demag's German facilities in Schwaig and Wiehe produce the Systec Servo range with hybrid drive as well as the EI-Exis SP and Systec SP range of high-speed, high-performance machines. The all-electric IntElect range for international customers is also being produced in Germany.

As early as 1998, Sumitomo (SHI) Demag set up its first production site in Ningbo/China. In 2015, the Chinese subsidiary Demag Plastics Machinery (Ningbo) Co., Ltd. installed a new facility with a 13,000 m² floor space. It is earmarked for the production of the Systec C range with clamping forces of between 500 and 10,000 kN for the Asian market.

In addition to injection moulding machines, Sumitomo (SHI) Demag offers customised and standardised systems for the part handling automation, technical and process solutions for special applications, tailored services and service concepts as well as a range of financial options to support investment in injection moulding machines.

With its comprehensive sales and service network of subsidiaries and agencies, Sumitomo (SHI) Demag is present in all major markets.

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